

EXHIBIT 5 (Part 2)
Deposition of William McCollum
Dated 11/12-13/2019
Deposition Exhibit
82 Con't

U.S. Nuclear Regulatory Commission
November 13, 2018
Page 3

TVA's oversight. Specifically, and as noted above, to the extent the Permits are not transferred to Nuclear Development prior to closing, and the plant is placed in terminated plant status, Nuclear Development has no intent to, and will not, perform licensed or construction activities on the site prior to Permit transfer.

Nuclear Development will staff its Owner's oversight organization and build its internal technical capabilities. It will contract with qualified providers for security and training, and it expects to offer employment to members of the existing Bellefonte site personnel upon completing the transaction. The Nuclear Development organization, leadership and quality assurance program description are discussed in the Application. Consistent with Section III.A.3 of the Deferred Plant Policy Statement, and upon transfer of the Permits, Nuclear Development will ensure effective quality assurance and implement oversight activities commensurate with regulatory and Permit requirements. Nuclear Development expects to receive the Permits in the same Deferred Plant status in which they currently exist, and as described in TVA's letter to the NRC in August 2009.

Nuclear Development has engaged an experienced, recognized and respected Engineering, Procurement and Construction Management ("EPCM") contractor, SNC-Lavalin Nuclear (USA) ("SLN") to lead the next engineering and construction phases of the Bellefonte project. SLN and its affiliates have substantial nuclear design and construction experience in North America and around the world and are well suited to this construction completion project. As such, Nuclear Development is technically qualified to maintain the Bellefonte Units in Deferred Plant status.

Prior to moving beyond Deferred Plant status and beginning licensed construction activities, Nuclear Development plans to enhance its Owner's oversight organization by engaging experienced professionals and/or an experienced nuclear plant operating company with a track record for successfully managing important safety-related projects of comparable scale. Prior to reactivating construction, Nuclear Development will submit the information required by Section III.A.6 of the Deferred Plants Policy, including a "description of the management and organization responsible for construction of the plant."

Nuclear Development plans to implement an approach by which it harnesses the technical expertise of multiple partners. For example, Nuclear Development anticipates engaging Framatome Inc. ("Framatome"), the successor of the owner of the Babcock & Wilcox model 205 design, to assist with the nuclear steam supply system design in the design phase. During the design and construction phases of the project, Nuclear Development plans to bid scopes of work to select experienced and qualified candidates. The successful bidders will perform their scopes under SLN's EPCM authority and Nuclear Development's oversight.

Nuclear Development has been established solely for the purpose of completing the construction of the Bellefonte Units. Under the Purchase and Sale Agreement, Nuclear Development has been reimbursing TVA for the ongoing costs of maintaining the Bellefonte Units in Deferred Plant status since November 2016. Until commercial financing of the project has been completed, Nuclear Development plans to continue to pay those costs with funds provided by its owners.

Nuclear Development is pursuing a project finance model for completion of construction of Bellefonte Units 1 and 2, similar to the approach applied in recent merchant plant combined license applications before the NRC. Nuclear Development has obtained production tax credits from the Internal Revenue Service for the output of the Bellefonte Units. It is negotiating with the Department of Energy Loan

U.S. Nuclear Regulatory Commission
November 13, 2018
Page 4

Program Office for a loan guarantee under the Energy Policy Act of 2005 and expects to receive a conditional commitment. In that process Nuclear Development has developed high quality cost and schedule estimates for completion of construction. As explained in the Application, and consistent with NRC precedents, Nuclear Development is requesting an exemption pursuant to 10 CFR § 50.12 from certain regulatory requirements related to financial qualifications for construction permits and has proposed the use of alternative financial qualification standards.

The Application requests a financial qualification license condition required to be satisfied before licensed construction. This condition would require Nuclear Development to provide an updated cost estimate, documentation of differences from previous estimates, and documentation of closing on financing for the project. Nuclear Development has adopted the approach explained in SECY-15-0123. The Application demonstrates satisfaction of the alternative standards by showing that Nuclear Development possesses or has reasonable assurance of obtaining the funds necessary to cover the estimated costs of possessing and maintaining the facility in a deferred status prior to resuming construction, and that it appears to be financially qualified to complete construction of the facility upon satisfying the condition.

Additional information pertaining to the proposed transfer of the Permits, including the information required under 10 CFR 50.80, is included in the Application. As that information demonstrates: (1) the proposed transfer of the Permits to Nuclear Development will allow Nuclear Development to complete the construction of the Bellefonte Units; (2) Nuclear Development has the requisite managerial, technical, and financial qualifications to be the holder of the Permits; (3) the material terms of the Permits will not be affected; and (4) the transfer of the Permits to Nuclear Development will not result in any impermissible foreign ownership, control or domination.

Pursuant to 10 CFR 50.90, Nuclear Development also requests NRC approval of certain administrative amendments to conform the Permits to reflect the proposed transfer. The changes are shown in Attachments 2 and 4 to this letter. Administrative changes to documents other than the Permits may be necessary upon Nuclear Development's assumption of control over the Bellefonte site. Changes to documents such as the QA and QV programs will be achieved as required by NRC regulations, such as 10 CFR 50.34, 10 CFR 50.55, and 10 CFR 50.55a.

In accordance with 10 CFR 50.91(b)(1), a copy of this submittal has been sent to the State of Alabama.

Nuclear Development respectfully request that the NRC review and complete action expeditiously on the enclosed Application. Nuclear Development requests NRC issue an order granting its consent and issuing the amended Permits as soon as practicable. Nuclear Development is prepared to work closely with the NRC Staff to facilitate the Application's review. Nuclear Development requests that NRC issue the Order approving the amendments to the Permits and authorizing the transfer.

In summary, the proposed transfer of the Permits will not be inimical to the common defense and security or result in any undue risk to public health and safety, and the transfer will be consistent with the requirements of the Atomic Energy Act and the NRC regulations.

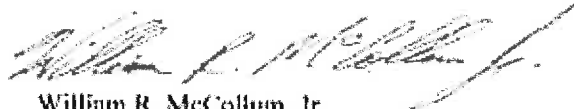
Service upon the Nuclear Development of any notices, comments, hearing requests, intervention petitions, or other pleadings should be made to Timothy P. Matthews, Morgan, Lewis & Bockius LLP,

U.S. Nuclear Regulatory Commission
November 13, 2018
Page 5

1111 Pennsylvania Ave., NW, Washington, D.C. 20004 (Tel: 202.739.5527; email:
timothy.matthews@nrc.nrg.doe.gov).

In the event that the NRC has any questions about the proposed transaction described in this letter and in the Application or wishes to obtain any additional information about the transfer of the Permits, please contact me at work: 828.686.1621, mobile: 828.333.2609, or email: bill@wrnccollum.com.

Sincerely,



William R. McCollum, Jr.
Chief Executive Officer & Chief Nuclear Officer
Nuclear Development LLC

Enclosures: Attachment 1 – Application for Order Approving Construction Permit Transfers and
Conforming Administrative Construction Permit Amendments
(Construction Permit Nos. CPPR-122 and CPPR-123)
Attachment 2 – Bellefonte Unit 1 Construction Permit (Changes)
Attachment 3 – Bellefonte Unit 1 Construction Permit (Clean Pages)
Attachment 4 – Bellefonte Unit 2 Construction Permit (Changes)
Attachment 5 – Bellefonte Unit 2 Construction Permit (Clean Pages)

cc w/Enclosures: William Gleaves, Project Manager
U.S. Nuclear Regulatory Commission

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission

State Health Officer
Alabama Dept. of Public Health
P.O. Box 303017
Montgomery, AL 36130-3017

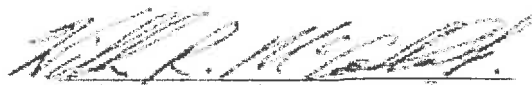
Mr. Mike Balduzzi
Chief Nuclear Officer and
Executive Vice President
Tennessee Valley Authority
1101 Market Street
Lookout Place 3R
Chattanooga, TN 37402-2801

CITY OF WASHINGTON)
) SS.
DISTRICT OF COLUMBIA)

AFFIRMATION

William R. McCollum, Jr., being duly sworn according to law deposes and says:

I am Chief Nuclear Officer, Nuclear Development LLC and, as such, I am familiar with the contents of this correspondence and the attachments thereto concerning the Bellefonte Nuclear Plant, and the matters set forth therein regarding Nuclear Development LLC are true and correct to the best of my knowledge, information and belief.


William R. McCollum, Jr.

Subscribed and Sworn to before me
this 13th day of November, 2018.





ATTACHMENT 1

**APPLICATION FOR ORDER APPROVING
CONSTRUCTION PERMIT TRANSFERS
AND
CONFORMING ADMINISTRATIVE
CONSTRUCTION PERMIT AMENDMENTS**

**BELLEFONTE NUCLEAR PLANT,
UNITS 1 AND 2**

**NRC CONSTRUCTION PERMITS
NOS. CPPR-122 AND CPPR-123
NRC DOCKET NOS. 50-438 AND 50-439**

ATTACHMENT 1

**Attachment 1 – Application for Order Approving Construction Permit Transfers
and
Conforming Administrative Construction Permit Amendments
(Construction Permit Nos. CPPR-122 and CPPR-123)**

Table of Contents

	Page
1. Introduction	1
2. Statement of Purpose of Transfer and Nature of the Transaction Making the Transfer Necessary or Desirable	2
3. General Corporate Information Regarding Nuclear Development LLC	3
4. Technical Qualifications	4
5. Financial Qualifications	7
6. Restricted Data	11
7. Other Nuclear Regulatory Issues	11
8. Requested Review Schedule and Other Required Approvals	13
9. Regulatory Safety Analysis	13
10. Environmental Considerations	14
11. Summary	14
Enclosure 1 Bellefonte Nuclear Plant Site Purchase and Sales Agreement	
Enclosure 2 Resumes of Key Management Personnel	
Enclosure 3 Request for Exemption Regarding Financial Qualification Applicable to Application to Transfer Construction Permits CPPR-122 and CPPR-123	
Enclosure 4 Projected Total Project Costs for Bellefonte Units 1 & 2 (Non-proprietary)	
Enclosure 4P Projected Total Project Costs for Bellefonte Units 1 & 2 (Proprietary)	
Enclosure 5 Quality Assurance Plan	

1. Introduction

In accordance with Section 184 of the Atomic Energy Act, 10 CFR 50.80, and the Commission Policy Statement on Deferred Plants, 52 *Federal Register* 38077, Oct. 14, 1987 (“Deferred Plants Policy”), Nuclear Development LLC (“Nuclear Development”) hereby submits this application (“Application”) requesting that the U.S. Nuclear Regulatory Commission (“NRC”) consent to the transfer of Construction Permit Nos. CPPR-122 and CPPR-123 (the “Permits”) for the Bellefonte Nuclear Plant, Units 1 and 2 (“Bellefonte Units”) now held by the Tennessee Valley Authority (“TVA”) to Nuclear Development. Nuclear Development also requests that the NRC issue conforming administrative amendments to reflect the transfer and amend the Permits to reflect revised construction completion dates discussed herein. To the extent the NRC does not have sufficient time to decide substantively on the matters requested in the Application prior to closing of the asset transfer, Nuclear Development requests that the NRC hold the Permits in terminated plant (but unexpired and not withdrawn) status, consistent with the Section III.B of the Deferred Plants Policy, until such time as the Commission has reached its determination on these requests.

Nuclear Development is a special purpose entity owned by Mr. and Mrs. Franklin L. Haney and trusts for members of their family. In 1967, Mr. Haney founded the Franklin L. Haney Company, LLC, a highly-successful, privately-held real estate and property development business with headquarters in Chattanooga, TN and Washington, DC. The Franklin L. Haney Company has more than 30 years of experience in project development and a development portfolio of more than \$10 billion. Its model for success has included engaging partners with project-related expertise, as with the Dulles Greenway Toll Road project. Additional information about Nuclear Development is provided herein.

The site of the Bellefonte Units is located in Hollywood, Alabama. The site is comprised of two partially complete pressurized water reactors, each with a Babcock & Wilcox (“B&W”) model 205 nuclear steam supply system. TVA obtained the construction permits for the Bellefonte Units in December 1974 and began construction on both units in 1975. TVA continued construction through 1988 before electing to cease construction, with Unit 1 approximately 90% complete and Unit 2 approximately 60% complete. From 1988 to 2016, TVA considered re-starting and completing one or both of the Bellefonte Units from time to time. During the time when construction was not proceeding, TVA performed some alterations to the Bellefonte Units to support layup and preservation of systems and components. In addition, in the mid-2000s, TVA removed a number of components for use elsewhere in the TVA system or for salvage. At the current time, Unit 1 is estimated to be approximately 55% physically complete and Unit 2 is estimated to be approximately 35% physically complete.

As noted by TVA in its March 31, 2017 letter, Nuclear Development was the successful bidder in an auction for the plant conducted by TVA in November of 2016. Under the terms of the Purchase and Sale Agreement, as amended (enclosed with the Application as Enclosure 1), Nuclear Development plans to purchase from TVA the Bellefonte Purchased Assets, including certain real property, material equipment, machinery, tools, other tangible property, books and records (including permitting, quality assurance, maintenance and other records related to design, construction or operation of the Units), certain agreements and obligations, and subject to all applicable law, all permits, and authorizations, including the Permits that are the subject of this

Application. As amended, the current agreement with TVA would require closing of the asset transfer by November 30, 2018. However, the parties may agree to a further extension.

Additional information pertaining to the proposed transfer of the Permits, including the information required under 10 CFR 50.80, is included in this Application. As that information demonstrates: (1) the proposed transfer of the Permits to Nuclear Development will allow Nuclear Development to complete the construction of the Bellefonte Units; (2) Nuclear Development has the requisite managerial, technical, and financial qualifications to be the holder of the Permits; (3) the material terms of the Permits will not be affected; and (4) the transfer of the Permits to Nuclear Development will not result in any impermissible foreign ownership, control or domination.

Pursuant to 10 CFR 50.90, Nuclear Development also requests NRC issue administrative amendments to conform the Permits to reflect the proposed transfer. The changes are shown in Attachments 2 and 4 to the letter transmitting this Application. Administrative changes to documents other than the Permits may be necessary upon Nuclear Development's assumption of control over the Bellefonte site. Changes to documents such as the quality assurance (QA) and quality verification (QV) programs will be achieved as required by NRC regulations, such as 10 CFR 50.34, 10 CFR 50.55, and 10 CFR 50.55a.

2. Statement of Purpose of Transfer and Nature of the Transaction Making the Transfer Necessary or Desirable

The purpose of the transfer of the Permits from TVA to Nuclear Development is to complete construction of the Bellefonte Units. Nuclear Development will assume possession of and managerial responsibility for all licensed activities, including the QA and QV programs in deferred status, as well as the ultimate completion of construction of the Bellefonte Units. Nuclear Development will be licensed to possess, maintain and construct the Bellefonte Units and to ultimately complete them.

The transfer of the Permits is desirable because Nuclear Development intends to complete the long-delayed construction of the Bellefonte Units. Nuclear Development will be able to complete the Bellefonte Units using the project financing model used for other major infrastructure projects.

Nuclear Development's business objectives are to obtain the appropriate authority to safely complete high quality construction of Units 1 and 2, update and reactivate the docketed Operating License Application, begin commercial operation, and sell clean, safe, reliable power from the plants in the regional wholesale market. Toward those objectives, Nuclear Development has begun a methodical, stepwise approach to this project, including: identify leaders in the nuclear industry to augment its core team to better develop a regulatory roadmap, ensure appropriate oversight of quality and safety, plan construction methods and reliably estimate costs, solicit interest of potential power customers, and pursue available financial incentives that make private sector pursuit of a project of this magnitude achievable and economical. It has made substantial progress on all of these fronts and expects to proceed with the purchase as planned. Nuclear Development approaches this project with an appreciation for

the safety significance of the approvals it is requesting and an appreciation for its responsibilities to provide the NRC the requisite bases for the supporting findings the agency must make before granting each requested approval in sequence.

Both Bellefonte Units are currently in Deferred Plant Status. In 2011, NRC extended the construction date for Unit 1 to October 1, 2020. In 2014, TVA requested an extension of the completion date for Unit 2. On March 31, 2017, TVA provided an update on that extension request noting the continuing timely renewal status of that application under 10 CFR § 2.109 and informing NRC of the planned sale of the Bellefonte Units to Nuclear Development. This update also deferred action regarding a revised construction completion date to interaction between NRC and Nuclear Development. Thus, Unit 2 remains in timely renewal status; this Application provides the basis for and requests updated construction completion dates for both units, i.e., October 1, 2029 for Unit 1, and October 1, 2030 for Unit 2.

Nuclear Development recognizes that Section 185 of the Atomic Energy Act and NRC regulations at 10 CFR 50.10(c) require that a company hold a Construction Permit before performing licensed construction, subject to any other regulatory restrictions. Nuclear Development plans to close on acquisition of the Bellefonte Units (and related Purchased Assets), but undertake no licensed construction activities unless and until the NRC grants the authority requested in this Application. Nuclear Development is guided in this approach by the considerations explained in Section III.B.2 of the Deferred Plant Policy related to transfers of plants in deferred or terminated construction status, and whose Construction Permits have not been withdrawn by the NRC. Once the Permits have been transferred, Nuclear Development plans to continue only the status quo physical preservation, security and safety activities now being conducted by TVA. The Application describes Nuclear Development's plans for oversight of these site preservation, security and safety activities in the interim period and following Permit transfer and before restarting licensed construction, during which they will no longer be subject to TVA's oversight. Specifically, and as noted above, to the extent the Permits are not transferred to Nuclear Development prior to closing, Nuclear Development has no intent to, and will not, perform licensed or construction activities on the site prior to Permit transfer.

3. General Corporate Information Regarding Nuclear Development LLC

a. General Corporate Information and Description of Business

Nuclear Development is a special purpose entity owned by Mr. and Mrs. Franklin L. Haney and trusts for members of their family, as follows:

Franklin L. Haney, Sr.	15%
Emeline W. Haney	10%
Emeline W. Haney as trustee for Irrevocable Trusts for the Benefit of :	75%
Mary Alice Haney	15%
Mae Haney Grenman	15%
Margaret Haney	15%
E. Michelle Haney Maddux	15%
Franklin L. Haney, Jr.	15%

Nuclear Development is controlled by Franklin L. Haney, Sr. It is a manager managed LLC, and Mr. Haney is the sole manager. Mr. William R. McCollum, Jr. is its Chief Executive Officer (CEO) and Chief Nuclear Officer (CNO), and Frank L. Haney, Jr. is its President. Mr. Larry D. Blust is its General Counsel and Secretary. Resumes for these key management personnel are provided in Enclosure 2.

b. No Foreign Ownership, Control, or Domination

The owners and key management personnel of Nuclear Development are all U.S. citizens. Consistent with the requirements of 10 CFR 50.38, Nuclear Development is not owned, controlled or dominated by an alien, a foreign corporation, or a foreign government.

c. No Agency

Nuclear Development is not acting as the agent or representative of another person in the proposed transfer of the Permits. As the licensed entity with possession and responsibility for management and construction of the Bellefonte site, Nuclear Development will act for itself.

4. Technical Qualifications

As described below, Nuclear Development is technically qualified to carry out its responsibilities as the holder of the Permits in Deferred Plant status. Nuclear Development will complete the required design, engineering, and construction activities to complete the construction of the Bellefonte Units by leveraging the project finance model for completing the plants. This model will both allow it to maintain the plants in their current deferred status and then to transition to construction activities once engineering planning is completed.

a. Owner Oversight Organization and Contractors

Nuclear Development will staff its Owner's oversight organization and build its internal technical capabilities. Nuclear Development has retained Mr. McCollum as its CEO and CNO. Mr. McCollum's resume is provided in Enclosure 2.

Nuclear Development also expects to offer employment to members of the existing Bellefonte site personnel upon completing the transaction. Consistent with Section III.A.3 of the Deferred

Plant Policy Statement, and upon transfer of the Permits, Nuclear Development will ensure effective quality assurance and implement oversight activities commensurate with applicable regulatory and Permit requirements.

Nuclear Development has engaged an experienced, recognized and respected Engineering, Procurement and Construction Management (“EPCM”) contractor, SNC-Lavalin Nuclear (USA) (“SLN”) to lead the next engineering and construction phases of the Bellefonte project. SLN and its affiliates have substantial nuclear design and construction experience in North America and around the world and are well suited to this construction completion project. As such, Nuclear Development is technically qualified to maintain the Bellefonte Units in Deferred Plant status. SNL will be responsible for day to day QA activities under a 10 CFR Part 50, Appendix B QA Program.

Nuclear Development has retained a qualified QA Manager to conduct oversight of the SNL QA Plan upon transfer of the Bellefonte Units. His responsibility includes review and audit functions. Nuclear Development expects to receive the Permits in the same Deferred Plant status in which they currently exist, and as described in TVA’s letter to the NRC dated May 12, 2009.¹

Prior to moving beyond Deferred Plant status and beginning licensed construction activities, Nuclear Development plans to enhance its Owner’s oversight organization by engaging experienced professionals and/or an experienced nuclear plant operating company with a track record for successfully managing important safety-related projects of comparable scale. Prior to reactivating construction, Nuclear Development will submit the information required by Section III.A.6 of the Deferred Plants Policy, including a “description of the management and organization responsible for construction of the plant” as required by Section III.A.6.e. If necessary and/or desirable, the NRC staff could impose a license condition requiring that resumes for the individuals intended to staff the construction organization be submitted with the notice to NRC contemplated by Section III.A.6.

The organization for the completion of the Bellefonte Units will provide:

- (1) A single Project Director and Site Executive Director (“Project Director”). In this role, the Project Director will be accountable for overall management, leadership, performance, nuclear safety, QA, QV, and employee safety.
- (2) A contracted technical support adviser. Nuclear Development has contracted with MPR Associates (“MPR”), a leading specialty engineering and technical services firm in the U.S. power industry. MPR will serve as the owner lead for oversight, support, and review of key strategic activities, including, for example, instrumentation and control (“I&C”) implementation, seismic studies and implementation, and electrical distribution work. MPR will also support Nuclear Development on nuclear regulatory issues. MPR will report directly to the Project Director.

¹ Letter from M. Bajestani to U.S. Nuclear Regulatory Commission, “TVA Implementation of Order Granting Reinstatement of Construction Permits Nos. CPPR-122 and CPPR-123 (May 12, 2009) (ADAMS Accession No. ML091340285).

- (3) A project controls organization staff. Nuclear Development has engaged High Bridge, a leading project controls and project management services firm in the U.S. nuclear industry, to serve in this capacity. High Bridge will also be supported by MPR. This organization will report directly to the Project Director.
- (4) A Site Director. This director will have day-to-day responsibilities to maintain the Bellefonte Units in their deferred status while engineering and other management activities continue.
- (5) These owner representatives will support Nuclear Development and the Project Director in supervising various Senior Managers. Nuclear Development currently anticipates that these senior managers will include a Manager, Site Operations, a Construction Manager, and an Engineering Manager. Because the Permits will be transferred in a deferred status, with Nuclear Development not recommencing construction activities without prior notice to the NRC, these Senior Managers have not yet been engaged.
- (6) Several Managers, directly reporting to the appropriate Senior Managers, with responsibilities for, industrial safety, project administration and financial services, training, labor relations, regulatory affairs, quality assurance, quality verification, licensing, environmental, project controls and, when appropriate, for radiological safety. These Managers may be contractors of their respective partners of Nuclear Development. This organization will provide a nuclear management team with control over the design, licensing and construction programs.
- (7) Implementation of high industry standards, best practices, effective programs and processes, and management controls.
- (8) Effective and integrated oversight and technical support functions.

The Bellefonte construction organization will provide an experienced nuclear management team to assure compliance with the requirements of the Permits and the Commission's regulations. Nuclear Development will implement a management approach to assure efficient and effective engineering; construction planning, preparation, and execution; an effective corrective action program; performance reporting, monitoring, and metrics; procurement oversight; configuration management; effective quality assurance and quality verification program implementation; appropriate project controls; a safety conscious work environment; security; day-to-day industrial safety and management rigor; personnel performance; financial controls; and, when appropriate, preparations for operation including radiological safety.

Nuclear Development plans to implement an approach by which it harnesses the technical expertise of multiple partners. For example, Nuclear Development anticipates engaging Framatome, Inc. ("Framatome"), the successor of the owner of the B&W 205 design, to assist with the nuclear steam supply system design in the design phase. During the design and construction phases of the project, Nuclear Development plans to bid scopes of work to select experienced and qualified candidates. The successful bidders will perform their scopes under SLN's EPCM authority and Nuclear Development's oversight.

Nuclear Development intends to subcontract technical support work only to qualified contractors who have the experience and past performance to ensure the timely and safe completion. Contractors will be expected to have an excellent safety record and approved 10 CFR Appendix B quality assurance plans to support their scopes of work. Contractor support workers for the project will report to the appropriate Senior Manager. Regulatory compliance, safety performance and schedule performance will be emphasized in all contracts. The Nuclear Development integrated approach and the implementation of common programs, processes and best practices will ensure that the support functions for the Bellefonte Units' construction are carried out efficiently.

b. Executive Oversight Board

Further, Nuclear Development will establish an Executive Oversight Board. The Executive Oversight Board will be comprised of senior representatives from each important stakeholder to the project. This Executive Oversight Board will meet monthly to review the progress of the Project. Based on these meetings and the scope of responsibility for each of the key stakeholders, Nuclear Development expects that key recommendations will be provided and implemented to resolve issues that develop during the Project. Furthermore, this Oversight Board will review the results of these actions and take additional measures and actions as necessary. The meetings of the Executive Oversight Board will provide formal, independent oversight of project performance and safety.

c. Conclusion

The Nuclear Development management team is experienced and qualified, and the organization is well-designed to accomplish the final design, planning, and ultimate construction of the site. The necessary management processes and controls will be applied, with clear lines of authority and communication. In addition, Nuclear Development will rely upon the experience and expertise of its strategic partners to perform key, specific portions of work scope to ensure safe and efficient construction of the Bellefonte Units. Accordingly, the proposed transfers have the potential to achieve synergies and management efficiencies at the Bellefonte Nuclear Plant, as well as expedite the completion of the Bellefonte Units. For these reasons, Nuclear Development and its management team have the necessary technical qualifications to safely complete construction of the Bellefonte Units.

5. Financial Qualifications

Nuclear Development has been established solely for the purpose of constructing the Bellefonte Units. Under the Purchase and Sale Agreement, Nuclear Development has been reimbursing TVA for the ongoing costs of maintaining the Bellefonte Units in Deferred Plant status since November 2016. Until commercial financing of the project has been completed, Nuclear Development plans to continue to pay those costs using funds provided by its owners.

Nuclear Development is pursuing a project finance model for completion of construction of Bellefonte Units 1 and 2, similar to the approach applied in other recent merchant plant combined license applications issued by the NRC. Nuclear Development has obtained

production tax credits from the Internal Revenue Service for the output of the Bellefonte Units. It is negotiating with the Department of Energy (DOE) Loan Program Office for a loan guarantee under the Energy Policy Act of 2005 and expects to receive a conditional commitment. In that process Nuclear Development has developed high quality cost and schedule estimates for completion of construction. Consistent with NRC precedents, Nuclear Development is requesting an exemption pursuant to 10 CFR § 50.12 from certain regulatory requirements related to financial qualifications for construction permits and has proposed the use of alternative financial qualification standards. Enclosure 3 provides Nuclear Development's "Request for Exemption Regarding Financial Qualifications Applicable to Application to Transfer Construction Permits CPPR-122 and CPPR-123."

This Application requests a financial qualification license condition that is required to be satisfied before commencing licensed construction. The license condition would require that Nuclear Development provide an updated cost estimate, documentation of differences from previous estimates, and documentation of closing on the financing for the project. Nuclear Development has adopted the approach explained in SECY-15-0123. This Application demonstrates satisfaction of the alternative standards by showing that Nuclear Development possesses or has reasonable assurance of obtaining the funds necessary to cover the estimated costs of possessing and maintaining the facility in a deferred status prior to resuming construction, and that it appears to be financially qualified to complete construction of the facility upon satisfying the license condition.

a. Maintaining and Possessing the Partially-Constructed Facility

Nuclear Development possesses or has reasonable assurance of obtaining the funds necessary to cover estimated costs of possessing and maintaining the Bellefonte Units prior to resuming construction. The owners of Nuclear Development have funded the maintenance of the Bellefonte Units since November 2016, and they will continue to do so until construction financing is put in place to satisfy the license condition for commencing construction. As already noted, Mr. Haney has built a development business worth \$10 billion. Moreover, the owners have demonstrated their ability to pay these costs given that they have already been doing so for the last two years.

b. Resuming and Completing Construction

As demonstrated below, Nuclear Development is financially qualified to resume and complete construction of the Bellefonte Units. The information below reflects the financial capacity of Nuclear Development to obtain the necessary funding for the project and demonstrates its level of understanding of the size and scope of the project, including the level of capital necessary to undertake the project, and reflects the organizational and human resources, experience, skills, and expertise required to obtain proper financing and ultimately finance the project, when appropriate.

(1) Construction Cost Estimate

Enclosure 4P provides the Projected Total Project Costs for Bellefonte Units 1 & 2. The estimate includes amounts for contingency, escalation, owner's costs, capitalized interest during construction, and other financing costs. **Note: Enclosure 4P is the proprietary version of this information; it is proprietary and confidential, and should be withheld from public disclosure. An affidavit in support of its proprietary nature is provided in Enclosure 4.** A redacted, non-proprietary version of this enclosure that is suitable for release to the public is provided as Enclosure 4.

(2) Proposed Construction Permit Condition

Nuclear Development proposes amending the Permits to include the following condition:

The licensee will notify the NRC at least 120 days prior to its anticipated date of resuming construction that this license condition has been fulfilled and that the following are available for inspection:

- An updated cost estimate for completion of construction;
- Documentation justifying any material variances from the original cost estimate provided in the application; and
- Documentation demonstrating that the licensee has secured financing to fund the updated cost estimate for the completion of construction. This documentation will include operative closing documents, and may include documented proof of parent and affiliate assurances, or capital from other sources (as required to close the financing) that reflect financing for the project.

As used in this proposed license condition, the term "construction" has the same definition as contained in 10 CFR 50.10(a).

(3) Financial Capacity Plan

This plan demonstrates Nuclear Development's level of understanding of the size and scope of construction of the Bellefonte Units, including the level of capital necessary to undertake the project. The plan also discusses the organizational and human resources, experience, skills, and expertise required to obtain proper financing and ultimately finance the project. The plan includes a description of the management team as it pertains to financing, and the team's experience and expertise in the areas of finance, capital sourcing, and large build projects.

i. Description of Management Team for Financing

This section discusses Nuclear Development's management team for financing of construction of the Bellefonte Units. The management team includes experienced financing professionals from Nuclear Development, as well as representatives and financial advisors from consultants. This section describes their experience with potential sources of project funding, including financing of the construction and operation of large energy and other infrastructure projects.

A. Nuclear Development's Internal Financing Team

Nuclear Development's internal management team includes experienced financing professionals. Franklin Haney, Sr. is an experienced developer of large infrastructure projects, and Frank Haney, Jr. is an experienced financial executive and developer. Mr. Larry D. Blust also has extensive experience with project finance. In 1967, Mr. Haney founded the Franklin L. Haney Company, LLC, a highly-successful, privately-held real estate and property development company with headquarters in Chattanooga, TN and Washington, DC. The Franklin L. Haney Company has more than 40 years of experience in project development and a development portfolio of more than \$10 billion. Its model for success has included engaging partners with project-related expertise, as with the Dulles Greenway Toll Road project. This major project involved the private development of fourteen miles of toll highway connecting Leesburg with Dulles Airport. Both Mr. Franklin Haney and Mr. Frank Haney were involved in arranging for \$2 billion in senior and mezzanine debt in connection with an expansion of the project to add a new lane in each direction.

Another large project is the Portals Office Building I and II, which includes 1.8 million square feet of prime office space, 125,000 of highly desirable retail and restaurant space and the 400-room Mandarin Oriental Hotel. The headquarters of the Federal Communications Commission is located in the Portals project. Other projects include the Birmingham Social Security Center (660,000 square feet), Dawson Creek, Colorado (1,900 acre residential development), and 101 Marietta Tower in Atlanta (680,000 square feet).

Further information regarding numerous past projects of the Franklin L. Haney Company, LLC is available at:

<https://www.flhcompany.com/past-projects/>

Nuclear Development is negotiating a term sheet and conditional loan commitment with the DOE Loan Programs Office.

B. Nuclear Development's External Financing Consultants

Nuclear Development has used expert consultants to support various aspects of project funding and will continue to do so as needed and appropriate. Nuclear Development retained a prominent international financial institution as its primary financial advisor in regard to the rating, financing structure and financial plan for the project. MPR Associates, a well-regarded engineering firm with nuclear expertise, acted as independent engineers. MPR developed and validated the cost estimate and construction schedule. ICF International Inc., a global consulting services firm, advised on market conditions, and its consultants studied and validated the projected price for electricity in the relevant market.

ii. Description of Anticipated Funding Methods and Sources

This section provides a description of the anticipated funding methods and sources.

Nuclear Development has applied for a loan from the U.S. Federal Finance Bank through the DOE Loan Guarantee Program. As noted earlier, Nuclear Development is negotiating the detailed loan guarantee term sheet and conditional loan commitment from the DOE Loan Programs Office. Nuclear Development expects the amount of this guarantee to cover 80% of the anticipated cost of completing construction of the Bellefonte Units.

Nuclear Development also anticipates that it will arrange for equity contributions for the remaining 20% of the cost of completing construction.

* * *

Nuclear Development's management team has an understanding of the complexities of financing a large nuclear power plant, the challenges in raising capital, and the need for ensuring financing before resuming reactor construction. Members of Nuclear Development's management team expect to obtain a conditional loan commitment and possess the capacity to obtain the final loan guarantee and other funding necessary to complete construction of the Bellefonte Units.

6. Restricted Data

This Application does not contain any Restricted Data or other classified National Security Information, and it is not expected that such information will become involved in Nuclear Development's licensed activities. However, in the event that such information does become involved, and in accordance with 10 CFR 50.37, "Agreement Limiting Access to Classified Information," Nuclear Development agrees that it will appropriately safeguard such information and will not permit any individual to have access to such information until the individual has been appropriately approved for such access under the provisions of 10 CFR Part 25, "Access Authorization for Licensee Personnel," and/or Part 95, "Facility Security Clearance and Safeguarding of National Security Information and Restricted Data."

7. Other Nuclear Regulatory Issues

a. Date of Completion

In conformance with 10 CFR 50.33(h), Nuclear Development plans to complete construction of the Bellefonte Units after approximately a half year of planning, two years of engineering and four years of construction and refurbishment activity. Nuclear Development currently anticipates that both Units will be complete by 2024.

b. Antitrust

The Energy Policy Act of 2005, Pub. L. No. 109-58, § 625, 119 Stat. 784 (2005), added subsection (c)(9) to Section 105 of the Atomic Energy Act, which states that the need for a NRC antitrust review "does not apply to an application for a license to construct or operate a utilization facility or production facility under section 103 or 104b. that is filed on or after the date of enactment of this paragraph." For similar reasons as those stated in the Commission's

decision in *Kansas Gas & Electric Co.* (Wolf Creek Generating Station), CLI-99-19, 49 NRC 441 (1999), transfers of construction permits are exempt from antitrust review. *See also* NUREG-1574, Rev. 2, Standard Review Plan on Transfer and Amendment of Antitrust License Conditions and Antitrust Enforcement at 2 (Dec. 2007) (ML072260035) (“In light of the *Wolf Creek* decision, no [“significant changes”] analysis or antitrust review is undertaken when there is a license transfer application, regardless of whether it involves a direct or indirect license transfer.”). Accordingly, the Atomic Energy Act does not require or authorize antitrust reviews of this Application.

c. QA Program

Upon consummation of the transfer, Nuclear Development will assume responsibility for the overall QA program requirements associated with maintaining ownership of Permits as specified for the Bellefonte Units in the TVA Nuclear Quality Assurance Program Description (QAPD), Revision 33 (or later revision if affected). TVA will transfer responsibility for the QA program requirements at Bellefonte to Nuclear Development. Nuclear Development will establish a QA Program that meets the NRC requirements in 10 CFR Appendix B, including review and audit functions that will allow it to oversee SLN. Nuclear Development has retained Mr. John A. Sablinski, who is experienced and fully qualified to act as QA Manager. In particular, he will perform this review and audit function. Mr. Sablinski’s resume is provided in Enclosure 2.

SLN has a 10 CFR Appendix B, QA Program that meets NRC’s requirements, and SLN will perform the day-to-day QA function under its plan. SLN also has developed a QA Plan specifically for Bellefonte, retaining the existing requirements of the TVA QA program. This plan has been reviewed and approved by Nuclear Development. A copy of the SLN QA Plan for Bellefonte is provided as Enclosure 5. Nuclear Development and SLN do not anticipate significant further changes to the existing QA program for the Bellefonte Units beyond conforming changes consistent with the license transfer, but any changes that do occur will be made by SLN in accordance with 10 CFR 50.54(a) with oversight provided by Nuclear Development for any changes.

d. QV Program

Similarly, upon consummation of the transfer, Nuclear Development will assume authority and responsibility for the functions necessary to fulfill the QV requirements of the Permits as specified for the Bellefonte Units in the TVA Nuclear Quality Verification Program. TVA will transfer all of the current functions of the existing QV program at Bellefonte to Nuclear Development, which will establish its own QV organization and program. This QV organization and program will be supported by SLN for QV oversight and inspections. While the Bellefonte Units remain in deferred status, SLN and Nuclear Development do not anticipate any changes to the existing QV program for the Bellefonte Units beyond conforming changes consistent with the license transfer, but any changes that do occur will be made in accordance with 10 CFR 50.54(a). Nuclear Development plans to address the QV program’s conclusions in any submittal it makes to the NRC prior to resuming construction activities.

e. Organizational Functions

Upon consummation of the transfer, Nuclear Development will maintain the existing Bellefonte site organizational structure, personnel, procedures and programs in the same structure as is currently in place under TVA. This applies to the following functions related to maintenance of the deferred construction permit;

- Document Control
- Configuration Management
- Training
- Security
- Corrective Action Program
- Material Control
- Equipment Maintenance

f. Insurance

As required by 10 CFR 140.13, Nuclear Development will file with the Commission proof of financial protection (in the manner specified in 10 CFR 140.15) before the Commission issues it an operating license under 10 CFR Part 50 or a license under 10 CFR Part 70 authorizing ownership, possession and storage only of special nuclear material at the site for use as fuel in operation of the Bellefonte Units after issuance of an operating license under 10 CFR Part 50.

8. Requested Review Schedule and Other Required Approvals

Nuclear Development respectfully requests that the NRC review and complete action expeditiously on this Application toward issuance of the NRC consent to the transfer of the Permits to Nuclear Development. In any event, Nuclear Development requests issuance of an Order and conforming license amendments by May 1, 2019. Nuclear Development is prepared to work closely with the NRC Staff to facilitate the Application's review.

9. Regulatory Safety Analysis

The changes proposed for the Bellefonte Nuclear Plant Unit 1 are shown in Attachment 2, and clean pages are provided as Attachment 3 to the transmittal letter. Similar changes are provided for the Bellefonte Nuclear Plant Unit 2 in Attachments 4 (changes) and 5 (clean pages). The changes conform the Permits to reflect the proposed transfer of authority and responsibility for licensed activities under the Permits to Nuclear Development. Consistent with the generic determination in 10 CFR 2.1315, "Generic determination regarding license amendments to reflect transfers," paragraph (a), the proposed conforming permit amendments involve no significant hazards consideration, because they do no more than conform the permits to reflect the transfer action.

The proposed permit amendments do not involve any change in the design or licensing basis, plant configuration, the status of the Bellefonte Units, or the requirements of the Permits.

Therefore, the proposed approval does not: (1) involve an increase in the probability or consequences of an accident previously analyzed; (2) create the possibility of a new or different kind of accident from the accidents previously evaluated; or (3) involve a significant reduction in a margin of safety.

10. Environmental Considerations

This Application and accompanying administrative amendments are exempt from environmental review under 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," because they fall within the categorical exclusion at 10 CFR 51.22(c)(21) ("Approvals of direct or indirect transfers of any license issued by NRC and any associated amendments of license required to reflect the approval of a direct or indirect transfer of an NRC license"). Accordingly, neither an Environmental Assessment nor an Environmental Impact Statement is required.

11. Summary

In summary, the proposed transfer of the Permits to Nuclear Development will be consistent with the requirements of the Atomic Energy Act, NRC regulations, and regulatory guidance. Upon consummation of the transfer, Nuclear Development will maintain the Bellefonte Units in their deferred status while it proceeds expeditiously to complete engineering and design of the Bellefonte Units, with an ultimate goal of completing the construction of the Bellefonte Units. There will be no adverse impact on public health and safety during either activity. The transfer of the Permits will not be inimical to the common defense and security and does not involve foreign ownership, control or domination. Nuclear Development therefore requests that the NRC consent to the transfer in accordance with 10 CFR 50.80 and approve the conforming administrative amendment pursuant to 10 CFR 50.92.

ENCLOSURE 1

BELLEFONTE NUCLEAR PLANT SITE PURCHASE AND SALES AGREEMENT

TVA Tract No. XBEGP-3

**BELLEFONTE NUCLEAR PLANT SITE
PURCHASE AND SALES AGREEMENT**

THIS PURCHASE AND SALES AGREEMENT (this "Agreement") is entered into as of the 14th day of November, 2016 (the "Effective Date"), by and between THE UNITED STATES OF AMERICA, ACTING BY AND THROUGH THE TENNESSEE VALLEY AUTHORITY ("TVA") and NUCLEAR DEVELOPMENT, LLC, a Delaware limited liability company ("Buyer") (TVA, on the one hand, and Buyer on the other hand, are each referred to herein as a "Party" and collectively as the "Parties").

RECITALS:

- A. TVA has custody and control of the Bellefonte Nuclear Plant Site, located in Jackson County, Alabama, including certain infrastructure and other assets located thereon (the "BLN Property");
- B. The real property that comprises the BLN Property was acquired by the United States of America by virtue of the instruments of record identified in Schedule R.1(a);
- C. The BLN Property nominally consists of approximately 1,600 acres; however, TVA excluded from sale most of the shoreline as well as two archeological sites, and the location where a sewer treatment plant is operated by the Jackson County Water Authority. In addition, TVA is excluding a pole yard training center that is used to train transmission line repair and maintenance personnel employed by TVA and members of the Tennessee Valley Public Power Association located on the Site (the "Pole Yard Training Center"), unless Buyer elects to take fee title to this center (as provided herein below) and if Buyer does so elect, TVA will retain a permanent easement to continue to use the Pole Yard Training Center;
- D. With the exclusions referenced in Recital C above, the approximate acreage being conveyed by TVA to Buyer is approximately 1,400 acres and is described more fully in Schedule R.1(a) and shown on the survey in Schedule R.1(b) (the "Site"). TVA has drawn the Site boundaries to separate the acreage and associated assets at the Site from the acreage and portions of the BLN Property that will not be conveyed in a sale. TVA's primary objective in drawing these asset boundaries is to meet certain TVA programmatic needs and provide the Buyer with ownership and operating control of only that portion of the BLN Property necessary to optimize the use of the location and its long-term value. Accordingly, the auction sale included only those structures and improvements located on the Site;
- E. The Site includes two partially-constructed B&W pressurized water nuclear reactors with associated infrastructure including, but not limited to, two cooling towers, reinforced containment buildings, spent fuel storage pools, water intake and discharge systems on the Tennessee River, two training centers in addition to the Pole Yard Training Center, office and warehouse buildings, diesel powered generators, a railroad spur, a helicopter landing pad, parking lots, and 161-kV and 500-kV switchyards and associated on-site transmission lines that are located within the boundaries of the acreage being sold;
- F. The TVA Board of Directors at its regularly scheduled meeting on May 5, 2016 declared the Site to be surplus and authorized its sale in whole or in part at public auction under Section 31 of the Tennessee Valley Authority Act (subject to successful completion of any additional environmental reviews);
- G. TVA through its consultant Concentric Energy Advisors, Inc. ("Concentric") and its own communications has widely advertised the availability of the Site for purchase, and provided

interested buyers the opportunity to access Site documents, tour the Site, and to meet with TVA management to discuss the purchase and sale;

- H. TVA used a two-stage auction process for the sale of the Site: Stage 1 included an opportunity for interested buyers to submit on a confidential basis Indicative bids to TVA describing their potential use of the Site, spend plan for investing in the Site and surrounding area, financial capabilities, and other information, and Stage 2 during which additional due diligence activities by interested buyers could be conducted leading to a public auction that was open to all interested buyers which were determined to be financially qualified ("Bidders");
- I. TVA established as the minimum acceptable bid for the Site the sum of Thirty-Six Million, Four Hundred Thousand U.S. Dollars (\$36,400,000) based on a professional appraisal that was completed for TVA by Federal Appraisal and Consulting;
- J. TVA held a public auction open to all qualified Bidders starting at 9:00 a.m. (CST) November 14, 2016;
- K. Buyer participated in the public auction and TVA determined that Buyer made the highest and best bid in terms of sales price and investment schedule;
- L. TVA desires to sell the Site to Buyer and Buyer desires to purchase the Site; and
- M. TVA has acquired replacement steam generators (the "Steam Generators") for the two partially-constructed B&W pressurized water nuclear reactors pursuant to TVA Contract No. 4088 between TVA and Babcock & Wilcox Canada Ltd. (the "B&W Contract") The Steam Generators are being manufactured in Canada and are scheduled to be completed by May 31, 2017. As further set forth herein, TVA is willing to grant an option to Buyer to purchase the Steam Generators on the terms set forth herein.

AGREEMENT:

IN CONSIDERATION of the mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Purchase and Sale.

At the Closing (as defined in Section 5 below), TVA shall sell, transfer, convey, assign and deliver title and possession to Buyer, and Buyer shall purchase and pay for, all of TVA's right, title and interest in each of the following (the following items (a) through (f) being, collectively, the "Purchased Assets"):

(a) All the real property comprising the Site (together with all buildings, structures, fixtures, and other improvements located thereon), all as more particularly described in Schedule R.1(a) and shown on the survey in Schedule R.1(b) (the "Real Property");

(b) All materials, equipment, machinery, tools, parts, supplies, consumables (meaning any and all of the expendable materials, supplies and other items consumed at the Bellefonte Nuclear Plant facility (the "Facility") in the ordinary course of the operation of the Facility), tangible personal property and other such items present or held for use at the Facility;

(c) If requested by Buyer within 180 days of Closing (as defined in Section 5 below), TVA shall provide within 90 days of being requested by Buyer, the following: all books, operating records, permitting records, quality assurance records, purchasing records, and equipment repair, maintenance or service records relating primarily or exclusively to the design, construction, permitting or operation of the

infrastructure located on the Site, including, but not limited to, the two partially-constructed B&W nuclear reactors; and all Site-related operating, safety and maintenance manuals, inspection reports, environmental assessments, environmental reports, engineering design plans, documents, blueprints and as built plans, specifications, procedures and other similar items of TVA, wherever located within TVA's facilities, relating primarily to the Site; whether in electronic or physical form, owned by and in possession or control of TVA at Closing (as defined in Section 5(a) below) other than the books and records of TVA excluded under Section 3(b) below (the "Facility Books and Records"); provided, however, that TVA shall have the right to retain copies of all such books and records described in this Section 1(c) for its use and shall treat as confidential certain of these records that Buyer designates as confidential to the extent permitted by law;

(d) All assumed agreements and obligations (to include the benefit of any prepayments and deposits, if any, made for the account of the same, but excluding any agreements and contracts expressly requiring the consent of TVA's counter-parties prior to any assignment and assumption between TVA and Buyer) listed on Schedule 1(d) (the "Assumed Agreements"), if any, and as further provided in Section 2 below, as the same may be updated at Closing pursuant to Section 6(g)(i); and

(e) To the extent feasible and permitted by applicable law, all permits, licenses or authorizations issued or required by Governmental Authorities or third parties in connection with the operation of the Site and listed on Schedule 1(e) (the "Permits"); provided, however, that with regard to the transfer of the two permits issued to TVA by the Nuclear Regulatory Commission ("NRC") to construct two B&W pressurized water nuclear reactors, this Section 1(e) shall not require TVA to certify that Buyer is qualified and fit to complete construction of and operate those reactors and, if Buyer informs TVA that it does not seek transfer of these NRC permits, TVA shall take whatever action is necessary to terminate those permits. Further, if, an applicable Governmental Authority has not accepted or otherwise allowed the transfer of a permit, license or authorization pursuant to this Section 1(e) by Closing, TVA's obligations under this Section 1(e) shall cease.

(f) Any and all other assets owned, leased, licensed or contracted for by TVA and used at the Site as of the Closing (as defined in Section 5(a)) located on the Site, but specifically excluding those certain Excluded Assets as defined in Section 3 below and those listed in Schedule 3(a), if any.

2. Assignment and Assumption of Assumed Agreements and Assumed Liabilities.

On the terms and subject to the conditions set forth in this Agreement, effective as of the Closing (as defined in Section 5), Buyer shall assume, pay, discharge, perform and be responsible for the following obligations from and after the Closing (collectively, the "Assumed Liabilities");

- (a) Obligations under the Assumed Agreements accruing on or after the Closing; and
- (b) Obligations and liabilities relating to the ownership and use of the Purchased Assets arising from and after the Closing, excluding TVA's Retained Environmental Liabilities (as hereinafter defined).

3. Excluded Assets.

Notwithstanding Section 1, the Purchased Assets shall not include TVA's interests in the following agreements, assets and properties (the "Excluded Assets"), and Buyer shall have no liability with respect thereto:

- (a) Certain large components located on the Site, as delineated in Schedule 3(a), which TVA shall have the right to remove before Closing; provided, however, that if TVA has not removed such components within that time period and Buyer has not agreed to extend such time period, then Buyer shall take ownership of any of these components that remain on the Site;

- (b) Books and records of TVA not relating directly and materially to the Purchased Assets including either of TVA's minute books, tax records, financial statements, accounting records and related notes, records related to other Excluded Assets or Excluded Liabilities (as defined in Section 4 below), market projections, marketing materials, Bidder information, reports prepared for management, lenders, and affiliates of TVA, and appraisals and information prepared in connection with the sale of the Purchased Assets;
- (c) Rights of TVA arising under this Agreement, the Transaction Documents (as defined in Section 6(c) below), and any other instrument or document executed and delivered pursuant to this Agreement;
- (d) As further set forth in the Special Warranty Deed in the form attached as Exhibit A hereto (the "Warranty Deed"), the following retained easements: (i) a permanent non-exclusive easement to enter and leave the Pole Yard Training Center along Bellefonte Road for TVA's employees, contractors, agents, and invitees and (ii), if Buyer elects to take fee title to the Pole Yard Training Center under the terms set forth in the Warranty Deed, a permanent easement to continue to use the Pole Yard Training Center by TVA, its employees, and invitees subject to Buyer's right to reasonable control access at times that may be necessary under applicable permits or licenses; provided, however, that (A) Buyer shall be required to provide TVA with notice of its intent to elect to take fee title to the Pole Yard Training Center and enter into such permanent easement not less than thirty days prior to Closing, and (B) the easements described above in this subpart (d) shall include the right for Buyer or any successor-in-title to Buyer to: (y) place underground utilities on the Pole Yard Training Center provided that such easements do not interfere with TVA's use of the Pole Yard Training Center and provided, further, that TVA is fairly compensated for the location of such utilities and is reimbursed for its expenses in connection with such placement, and (z) relocate the Pole Yard Training Center and the access road thereto at any time, and from time to time, to another location on the Site or in the vicinity of the Site having, as determined by TVA in its reasonable discretion, comparable access, facilities, topography, utility for training linemen, at the cost and expense of the Buyer or the successor-in-title to Buyer requesting the relocation, which relocation shall be memorialized in a publicly recorded amendment to the easements, thereby releasing the former Pole Yard Training Center and access roads if applicable, thereto from the encumbrance of the former Pole Yard Training Center and access easements;
- (e) Acreage and fixtures outside the boundary of the Site, as depicted on the survey map found at Schedule R.1(b) and as more fully described in the legal description at Schedule R.1(a), including but not limited to (i) two areas that have been determined to have potentially-important archeological resources; (ii) areas along the shoreline that contain wetlands; (iii) the Pole Yard Training Center (unless Buyer elects to take fee title to this center), and (iv) the location where the Jackson County Water Authority operates a sewer treatment plant. Notwithstanding the foregoing, upon Buyer's request (which request shall be made by Buyer to TVA not less than thirty days prior to Closing), TVA shall provide Buyer an easement to access and use the metrological tower and associated equipment (the "Met Tower") located within the Pole Yard Training Center or, alternatively, TVA will allow Buyer to remove and relocate the Met Tower. Additionally, if TVA, in its sole discretion, ceases to use the Pole Yard Training Center at any time in the future, TVA shall convey the Pole Yard Training Center to Buyer or, alternatively, shall terminate the permanent easement if the Buyer elected to take fee title to the Pole Yard Training Center at no additional cost;
- (f) The Steam Generators; provided, however, that Buyer shall have the option on or before Closing to purchase the Steam Generators and to assume (subject to consent from Babcock & Wilcox Canada Ltd.), all of TVA's rights and obligations under the B&W Contract upon advance written notice to TVA and payment to TVA of the additional sum of \$1,193,130, which is the estimated scrap value of the Steam Generators. In the event that Buyer elects to purchase the Steam Generators, TVA shall transfer ownership to Buyer upon payment of such amount by Buyer ; on or before Closing, Buyer shall be responsible for making arrangements to continue to store the steam generators or to have them delivered to another location;
- (g) Ownership of the 161-kV and 500-kV transmission line conductors and towers located on the Site to the points of terminus in the 161-kV and 500-kV switchyards on the Site including a permanent

easement to access and maintain this infrastructure; provided, however, that Buyer shall have the option to take ownership of this infrastructure by delivering written notice to TVA not later than thirty days in advance of the Closing. If Buyer exercises this option, this infrastructure shall be transferred with other transferrable assets on Closing;

(h) Notwithstanding anything to the contrary in this Agreement, Buyer may control access to and use of the excluded real property that comprised the approximately 1,600 acres of the Bellefonte Nuclear Site that was acquired by the United States of America by virtue of the instruments of record identified in Schedule R.1(a) to the extent necessary to establish owner-controlled access for NRC permitting and licensing purposes and to the extent reasonable and consistent with the rights TVA reserves and the covenants Buyer makes in the Warranty Deed; and

(i) Notwithstanding anything to the contrary in this Agreement, Buyer shall not be entitled to obtain or view the records relating to TVA's employees, both those working on the Site at and before Closing, and those working at other TVA locations or facilities, including salary and benefit information and any other personally identifiable information.

4. Excluded Liabilities.

Buyer shall expressly not assume and is not assuming pursuant to this Agreement any liability or obligation of TVA set forth below:

(a) Obligations, liabilities or duties of TVA for (i) any environmental liabilities incurred, accrued, existing or arising during the period prior to Closing and related to the Purchased Assets, (ii) any liability or obligation to any Governmental Authority prior to Closing, and (iii) any contractual obligations not assumed under the Assumed Agreements (collectively, "TVA's Retained Environmental Liabilities");

(b) Obligations incurred under Assumed Agreements prior to the Closing, including any obligations attributable to any failure by TVA prior to the Closing to comply with the terms of any such Assumed Agreement; and

(c) Obligations or liabilities with respect to employees of TVA and contractors of TVA (unless such contractual obligations are Assumed Liabilities); regardless, in each case, of when a claim may be asserted;

each of the above Sections 4(a) through 4(c) being, collectively, the "Excluded Liabilities."

5. Closing and Purchase Price.

(a) The closing of the transaction contemplated by and under this Agreement (the "Closing") shall occur on November 14, 2018; provided, however, that all conditions to the Closing set forth in Section 6 below shall have been satisfied or waived by the Party to whom the condition benefits. Closing shall take place at such location as the Parties may mutually agree. Provided that the Closing Condition set forth in Section 6(a)(i) has been satisfied and subject to the terms and conditions of this Agreement and the Warranty Deed, including but not limited to TVA's right under the Warranty Deed to undertake remediation activities subsequent to the Closing, Buyer shall have the right and option to elect to close the purchase of the Purchased Assets, and take title to the Purchased Assets on a closing date specified by Buyer, before TVA has completed its close-out activities at the Site, including removal of the Excluded Assets or the satisfaction of the condition set forth in Section 6(a)(ii), by Buyer giving TVA not less than sixty (60) days prior notice of the date Buyer elects to close the purchase of the Purchased Assets (for purposes of this Section 5(a), the "Early Closing Date"). Should Buyer exercise its option to close on an Early Closing Date, and the removal of the Excluded Assets from the Site and satisfaction of the condition provided in Section 6(a)(ii) below has not been fulfilled, then Buyer shall as of the Early Closing Date grant TVA an easement, having a term not to exceed two (2) years from the Early Closing Date and otherwise on terms acceptable to TVA in its sole discretion, permitting TVA to complete its close-out activities at the Site subsequent to the Early Closing Date, including the removal of the Excluded Assets.

(b) In consideration of the sale, assignment, conveyance, transfer and delivery by TVA to Buyer as of the Closing, Buyer shall pay to TVA an amount equal to One Hundred Eleven Million Dollars (\$111,000,000.00) (the "Purchase Price") in cash, payable in two installments as follows:

(i) One installment of Twenty-Two Million Two Hundred Thousand Dollars (\$22,200,000.00), which is equal to twenty percent (20%) of the Purchase Price, payable immediately upon execution of this Agreement (the "Down Payment"); and

(ii) One installment of Eighty Eight Million Eight Hundred Thousand Dollars (\$88,800,000.00), which is equal to eighty percent (80%) of the Purchase Price, payable at the Closing.

Each such payment shall be made by wire transfer of immediately available funds to such account as TVA shall provide to Buyer.

(c) In addition to the Purchase Price, Buyer shall also compensate TVA for its costs and expenses that TVA incurred in selling the Site, which include: (i) the cost of appraisals, property surveys and realty services, (ii) other associated administrative costs including the cost of TVA staff and payment to Concentric for its services, (iii) the cost of relocating off the Site certain large electrical components, and (iv) the cost of additional environmental reviews (collectively, the "Compensated Costs"). The amount due TVA under subparagraphs (c)(i) and (ii) is fixed at \$750,000 and shall be paid by Buyer immediately upon execution of this Agreement when the first installment of the Purchase Price is paid by wire transfer. The amount due under subparagraphs (c)(iii) and (iv) is fixed at \$1,650,000 and shall be paid on or before Closing by wire transfer.

6. Conditions to Closing.

(a) The obligations of TVA and Buyer to consummate the transactions contemplated by this Agreement shall be subject to the fulfillment, at or before the Closing, of each of the following conditions:

(i) TVA's Chief Executive Officer (the "TVA CEO") determines that potential environmental impacts have been appropriately addressed or are acceptable; provided, however, that notwithstanding any other provision of this Agreement, it is recognized that such determination is in the discretion of the TVA CEO and if the TVA CEO does not make such determination by Closing, then this condition shall be considered impossible or impracticable to satisfy and such impossibility or impracticability shall not be considered a breach by TVA of this Agreement;

(ii) Environmental substance contamination that exists on the Site has been appropriately remediated under Section 120(h), 42 U.S.C. § 9620;

(iii) Each of the Parties shall have performed and complied with the agreements, covenants and obligations required by this Agreement to be so performed or complied with by it at or before the Closing in all material respects;

(iv) Each of the representations and warranties made by the other Party in this Agreement shall be true and correct in all material respects on and as of the date hereof and the Closing as though made at and as of the Closing (except to the extent expressly made at an earlier time);

(v) There shall not be in effect at the Closing any law, statute, rule, regulation, permit, certificate or binding order, decree or decision of any Governmental Authority (as defined in Section 9(a)(ii) below) restraining, enjoining or otherwise prohibiting or making illegal the consummation of the transactions contemplated by this Agreement; and

(vi) The Parties shall have executed and delivered to one another the items set forth in each of Sections 6(b) and 6(c) below.

(b) At the Closing, Buyer shall pay or have paid to TVA the Purchase Price and Compensated Costs in accordance with Section 5 above and execute (as applicable) and deliver the following items (collectively, the "Buyer Transaction Documents") to TVA:

(i) a Bill of Sale, Assignment and Assumption Agreement (the "Bill of Sale and Assignment Agreement") in substantially the form of Exhibit B attached hereto as necessary for TVA to sell, transfer and deliver the Purchased Assets to Buyer and for TVA to assign and Buyer to assume TVA's rights and obligations with respect to the Purchased Assets, including but not limited to the Assumed Agreements;

(ii) an incumbency certificate of the Secretary or Assistant Secretary of Buyer identifying the name and title and bearing the signatures of the officers of Buyer authorized to execute and deliver this Agreement and the other agreements and instruments contemplated hereby;

(iii) a certificate addressed to TVA dated as of the Closing executed by the duly authorized officer of Buyer (A) as to the matters in Section 8(a)(ii), and (B) to the effect that Buyer has performed and complied with the agreements, covenants and obligations required by this Agreement to be so performed or complied with by Buyer at or before the Closing in all material respects;

(c) On or before the Closing, TVA shall execute (as applicable) and deliver to Buyer the following items (collectively, the "TVA Transaction Documents");

(i) the Bill of Sale and Assignment Agreement, together with fully executed copies of any and all Assumed Agreements, to deliver exclusive title to and possession of the non-realty Purchased Assets to Buyer;

(ii) the Warranty Deed and any closing statement and other documents necessary to deliver exclusive title to and possession of and convey the Site to Buyer;

(iii) bills of sale and certificates of title, where applicable, for the items of vehicles and equipment that are part of the Purchased Assets;

(iv) copies, certified by the Secretary of TVA, of resolutions or actions on written consent of the members and managers of TVA authorizing the execution and delivery of this Agreement and all of the other agreements and instruments, in each case, to be executed and delivered by TVA in connection herewith;

(v) an incumbency certificate of the Secretary of TVA identifying the name and title and bearing the signatures of the officers of TVA authorized to execute and deliver this Agreement and the other agreements and instruments contemplated hereby, and such other evidence of the approval of the transactions provided for hereunder, TVA's authority, due execution of documents and due organization as may be reasonably required by Buyer; and

(vi) a certificate addressed to Buyer dated as of the Closing executed by the duly authorized officers of TVA (A) as to the matters in Sections 7(a)(ii) and (iii), and (B) to the effect that TVA has performed and complied with the agreements, covenants and obligations required by this Agreement to be so performed or complied with by it at or before the Closing in all material respects.

(d) The Buyer Transaction Documents and the TVA Transaction Documents shall be collectively referred to as the "Transaction Documents."

7. TVA's Representations and Warranties.

(a) To induce Buyer to enter into this Agreement, TVA represents and warrants to Buyer as follows:

(i) TVA is an agency and instrumentality of the United States created and existing under the Tennessee Valley Authority Act of 1933, as amended, 16 U.S.C. §§ 831-831ee.

(ii) TVA has the authority to execute this Agreement and to transfer the Site to Buyer. This Agreement has been duly and validly executed and TVA has the authority to execute and deliver to Buyer the deed transferring ownership of the Site to Buyer.

(iii) At its regularly scheduled meeting on May 5, 2016, the TVA Board of Directors declared the Site surplus and authorized the TVA CEO to sell the Site in whole or in part. No other authorization or approval is needed for the actions contemplated by this Agreement.

(iv) Any environmental substance contamination that exists on the Site has been or will be appropriately remediated by Closing by TVA under Section 120(h), 42 U.S.C. § 9620 and TVA shall remain liable to remediate any other environmental substance contamination that exists on the Site before the Closing if discovered after Closing to the extent necessary under applicable environmental laws. Buyer shall provide TVA reasonable access to the location of any such post-closing discovered contamination to remediate it without charge.

(v) William D. Johnson, President and the TVA CEO, is authorized to execute this Agreement on TVA's behalf.

(vi) No investigation, action or proceeding is pending and, to TVA's knowledge, no action or proceeding is threatened and no investigation looking toward such an action or proceeding has begun, which questions the validity of this Agreement or any action taken or to be taken pursuant hereto.

(vii) TVA has full right, power and authority to execute and deliver this Agreement and to consummate the purchase and sale transactions provided for herein, and no authorization, consent or approval or other order or action of or filing with any Governmental Authority is required for the execution and delivery by the TVA of this Agreement or the consummation by the TVA of the transactions contemplated hereby.

(viii) To TVA's knowledge and except as disclosed in the Warranty Deed and in that certain Offering Memorandum issued by Concentric with regard to the Site dated August 19, 2016, no options to acquire easements, options to purchase, purchase agreements, purchase and sale agreements, rights of refusal or other rights or options to acquire or lease all or any portion of the Site, or any gas, oil, coal, geothermal, mineral or mining rights with respect to the Site, exist.

(b) The representations and warranties made in this Agreement by TVA shall be deemed remade by TVA as of the Closing with the same force and effect as if made on, and as of, such date.

8. Buyer's Representations and Warranties.

(a) To induce TVA to enter into this Agreement, Buyer represents and warrants to TVA as follows:

(i) Buyer is a limited liability company, duly formed, validly existing and in good standing under the laws of the State of Delaware, is authorized to transact business as a limited

liability company in the State of Alabama, and has full limited liability company power and authority to own, use and lease, as applicable, and acquire the Purchased Assets and to enter into and perform its obligations under this Agreement and to consummate the transactions contemplated hereby.

(ii) Buyer has taken all necessary action to authorize the execution, delivery and performance of this Agreement and upon the execution and delivery of any document to be delivered by Buyer on or prior to the Closing, this Agreement and each such document shall constitute the valid and binding obligation and agreement of Buyer, enforceable against Buyer in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws of general application affecting the rights and remedies of creditors and to the extent that the availability of the remedy of specific performance or injunctive or other forms of equitable relief may be subject to equitable defenses or would be subject to the discretion of the court before which any proceeding therefor may be brought.

(iii) No investigation, action or proceeding is pending and, to Buyer's knowledge, no action or proceeding is threatened and no investigation looking toward such an action or proceeding has begun, which questions the validity of this Agreement or any action taken or to be taken pursuant hereto.

(iv) Neither the execution, delivery or performance of this Agreement by Buyer, nor compliance with the terms and provisions hereof, will result in any breach of the terms, conditions or provisions of, or conflict with or constitute a default under, the terms of any indenture, mortgage, deed of trust, note, evidence of indebtedness or any other agreement or instrument by which Buyer is bound.

(v) Buyer warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon agreement or understanding for a commission, percentage, brokerage or contingent fee for which TVA will be liable.

(vi) No authorization, consent or approval or other order or action of or filing with any Governmental Authority is required for the execution and delivery by the Buyer of this Agreement or the consummation by the Buyer of the transactions contemplated hereby.

(vii) Except for express representations and warranties of TVA set forth herein, any of the Transaction Documents and any other agreement delivered in connection with Buyer's purchase of the Purchased Assets and Buyer's assumption of the Assumed Agreements, Buyer has relied and is relying solely on its own inspections, investigation and analyses of the Purchased Assets and the Assumed Agreements.

(b) The representations and warranties made in this Agreement by Buyer shall be deemed remade by Buyer as of the Closing with the same force and effect as if made on, and as of, such date.

9. Covenants. After the Effective Date and Prior to Closing.

(a) The Parties hereby make to one another the following covenants to be effective after the Effective Date and prior to Closing:

(i) Subject to the terms and conditions herein, each of the Parties agrees to use its commercially reasonable best efforts to consummate and make effective as soon as is commercially reasonable, the transactions contemplated hereby, including the satisfaction of all conditions thereto set forth herein.

(ii) Each Party shall provide reasonable cooperation to the other Party in obtaining consents, approvals or actions of, making all filings with and giving all notices to any federal,

state, local, foreign or other governmental subdivision, regulatory or administrative agency, commission, body, court, tribunal, arbitral panel, or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, police, regulatory, tax or other authority or power (each, a "Governmental Authority") over the matters specified as to the Site consistent with Section 1(e). The Parties shall keep each other apprised of the status of any communications with and any inquiries or requests for additional or supplemental information from applicable Governmental Authorities, and shall provide any such additional or supplemental information that may be reasonably requested in connection with any such filings or submissions. All applications, appearances, presentations, briefs, and proposals made or submitted by or on behalf of either Party before any Governmental Authorities in connection with the approval of this Agreement and the transactions contemplated hereby shall be subject to the control of the Party making such application, appearance, presentation, filing or submission.

(iii) Buyer and its officers, employees and agents shall have access upon reasonable prior notice to the Site, if requested, all for purposes of inspection and review. During any inspection or review, Buyer shall comply and shall cause its employees, officers and agents to comply, with all applicable safety and security procedures applicable to the Site and to conduct any inspection or review in a manner causing minimum interference with TVA's activities, and Buyer shall further have the right to enter the Site and conduct any survey, operational or equipment inspection (including with respect to inventory validation), or environmental inspection or assessment; provided, that neither Buyer nor any of its representatives shall collect or analyze any environmental samples (including building materials, indoor or outdoor air, surface or groundwater, or surface or subsurface soils) without TVA's prior consent, such consent not to be unreasonably conditioned, withheld or delayed. Notwithstanding anything to the contrary contained herein, Buyer shall not be permitted to contact any of TVA's vendors or suppliers without TVA's prior consent (not to be unreasonably withheld, conditioned or delayed) with respect to the Site or the transactions contemplated by this Agreement.

(iv) TVA shall give prompt notice to Buyer that, upon learning of any material change in any condition with respect to the Purchased Assets or of any event, circumstance, occurrence or non-occurrence which makes any representation or warranty of TVA to Buyer under this Agreement untrue, misleading or inaccurate in any material respect, TVA shall promptly notify Buyer thereof (Buyer mutually agreeing, on learning of any such fact or condition, likewise promptly to notify TVA thereof);

(v) TVA shall not, without the prior written consent of Buyer: (A) dispose of, assign, or transfer all or any portion of the Purchased Assets or any rights therein or thereto, or incur, create or permit any lien or encumbrance on, any of the Purchased Assets; or (B) enter into, amend, modify, terminate, grant any waiver of any term under or give any consent with respect to any easement, any Assumed Agreement, or any new contract or any permit related to the Site, in any manner adverse to Buyer in any material respect; provided, however, that the consent of Buyer shall not be required in the event of any emergency situations in which TVA must take action to prevent injury to persons or physical loss or damage to the Purchased Assets or as required to comply with applicable law. Additionally, TVA shall not (1) except in the ordinary course of TVA's operations at the Site, including transmission line maintenance, or to the extent caused by emergency or events of force majeure, commit or permit the cutting or severing of any timber, trees or other vegetation on the Real Property; (2) commit or permit the withdrawal or severing of any gas, oil coal, geothermal or minerals from the Real Property within the control of TVA; (3) perform or consent to any zoning, re-zoning, land use change or annexation affecting the Real Property except as requested by Buyer; or (4) enter into any options to purchase, purchase agreements, purchase and sale agreements, rights of refusal or other rights or options to acquire or lease all or any portion of the Purchased Assets, or any gas, oil, coal, geothermal, mineral or mining rights with respect to the Purchased Assets.

(b) From time to time after the Closing, without further consideration, TVA will, at its own expense, execute and deliver such documents to Buyer as Buyer may reasonably request in order to vest more

effectively in Buyer the right, title and interest in and to the Purchased Assets. If, after the Closing, TVA, on the one hand, or Buyer or any of its affiliates, on the other hand (as applicable, the "Receiving Party"), receives any funds that, pursuant to the terms of this Agreement, belong to the other party (the "Entitled Party"), the Receiving Party shall hold such funds in trust for, and immediately pay over such funds to, the Entitled Party.

10. Site and Area Expenditure Requirements.

(a) Buyer agrees to make a cumulative total expenditure of \$25 million in capital improvements to be made at the Site or to other land or easement areas located in Jackson County, Alabama in the amounts and by the dates indicated in Table 10(a) below:

Table 10(a)

Expenditure Date (After Closing)	Cumulative Amount (Minimum)
One year	\$ 5 millions
Two years	\$ 10 millions
Three years	\$ 15 millions
Four years	\$ 20 millions
Five years	\$25 millions

For purposes of this Section 10, demolition, removal and/or restoration costs paid with respect to work on the Site shall be credited towards satisfaction of the Cumulative Amounts set forth above. Additionally, the crediting of any capital improvements located off the Site but within Jackson County shall be subject to TVA's determination, in its sole discretion, that such improvements are connected to Buyer's improvements on the Site and would not have been made but for Buyer's development of the Site. The Parties further agree that the acquisition of additional realty rights shall not constitute a capital improvement for purposes of this Section 10.

(b) Buyer shall notify TVA in writing within 90 days when each of the above expenditure requirements is satisfied by Buyer and shall generally describe what it invested in.

(c) If Buyer fails to meet any of these expenditure requirements when scheduled, it shall explain to TVA in writing why it did not make the required expenditure within 30 days of the expenditure date and shall have 180 days from the expenditure date to cure such failure; provided, however, that if Buyer has made a good faith effort towards obtaining required federal, state or local permits or licenses necessary for the construction of such capital improvements and such time limitation expires through no fault of Buyer, then TVA at its reasonable discretion, and upon request, may extend such time limitation to facilitate Buyer's obtaining of such permits or licenses.

(d) In the event that Buyer fails to meet an expenditure requirement and fails to cure this pursuant to Section 10(c) above, TVA in its sole discretion, and as agent for the United States of America upon written notice to Buyer, may reenter the Site and take possession of the Purchased Assets, as if the conveyance provided for pursuant to this Agreement had never been made and without repayment of the Purchase Price or Reimbursable Costs and without making any other payment to Buyer. Upon receipt of such notice, Buyer shall cease any ongoing activities on the Site in a safe manner within 30 days of receipt of notice and shall vacate the Site. Within this same 30-day period, Buyer shall have the right to remove any personal property that it brought onto the Site. Any of Buyer's personal property remaining on the Site after this 30-day period shall become TVA's property if TVA in its sole discretion decides to take ownership of it. Buyer must remove from the Site any personal property that TVA chooses not to take ownership of and if Buyer fails to do this, TVA may remove it at Buyer's expense.

(e) At the end of each year described in Table 10(a), TVA agrees to promptly execute and deliver to Buyer a certification, in recordable form, for purposes of memorializing in the public records the Cumulative Amount of expenditures pursuant to Table 10(a) that Buyer demonstrates to have been made for such year, provided, however, that the Cumulative Amounts expended shall be fully effective and shall apply to the satisfaction of such capital improvements requirement, whether or not any such certification is executed or delivered by TVA.

11. Termination; Waiver.

(a) This Agreement may be terminated as described in Section 12 below. In addition, it may be terminated at any time prior to the date on which Closing is to occur pursuant to Section 5(a) (the "Closing Date"), as provided below:

- (i) By the mutual consent of both Parties in writing;
- (ii) By Buyer, if the closing condition set forth in Section 6(a)(ii) is unfulfilled as of the Closing Date or if there has been a violation or breach by TVA of any covenant, agreement, representation or warranty contained in this Agreement and such violation or breach (A) is not cured by TVA within thirty (30) days following notification by Buyer, and (B) such failure, violation or breach has not been waived by Buyer in writing;
- (iii) By TVA, if there has been a violation or breach by Buyer of any covenant, agreement, representation or warranty contained in this Agreement and such violation or breach (A) is not cured by Buyer within thirty (30) days following notification by TVA, and (B) such failure, violation or breach has not been waived by TVA in writing;
- (iv) By either Party, upon written notice to the other Party, if (A) any judicial decision or order of a Governmental Authority prohibiting the sale of the Site has been issued and made final or non-appealable, (B) the closing conditions set forth in Sections 6(a)(i) or 6(a)(v) are unfulfilled as of the Closing Date, or (C) the parties are not able to negotiate pursuant to Section 12(c) an adjustment to the Purchase Price in the event of damage to a Purchased Asset; or
- (v) By either Party, upon written notice to the other Party if Closing has not occurred on or prior to November 14, 2018 ;
- (vi) By Buyer at its convenience at any time prior to the Closing, upon written notice to TVA;

provided, however, that the termination of this Agreement under either of Sections 11(a)(ii) or 11(a)(iii) shall not relieve the non-terminating Party for liability for any breach or default that occurred prior to termination; and provided, further, that the right to terminate this Agreement pursuant to Section 11(a)(v) shall not be available to a Party if such Party shall have failed to perform, or caused any of its affiliates to perform, any of its respective obligations under this Agreement.

(b) Upon any termination or expiration of this Agreement, TVA shall be entitled to retain the Down Payment and any Compensated Costs paid by Buyer on or before termination or expiration, unless termination is under Section 11(a)(ii) or Section 11(a)(iv), in which event TVA shall return the Down Payment and any Compensated Costs paid by Buyer to Buyer within 30 days by check or electronically as directed by Buyer.

(c) At any time prior to the Closing, either Party, in its sole discretion, may (i) extend the time for the performance of any of the obligations or other acts of the other Party, (ii) waive any inaccuracies in the representations and warranties contained in this Agreement or in any document delivered pursuant to this Agreement or (iii) waive compliance with any of the covenants, agreements or conditions contained in this Agreement. Any such extension or waiver shall be valid only if set forth in writing signed by the Party to

be bound thereby. The waiver by a Party of a breach of any term or provision of the Agreement shall not be construed as a waiver of any subsequent breach.

12. Risk of Loss.

(a) Except as otherwise provided in this Agreement, prior to Closing, Buyer shall not bear any risk of loss or damage to the Purchased Assets. Until Closing occurs, TVA shall perform reasonable and normal maintenance activities to preserve the Purchased Assets in their current condition until Closing. If a Purchased Asset is damaged, TVA shall inform Buyer within 15 days of the event and Buyer shall have the right to view and inspect the damaged Purchased Asset.

(b) Subject to Section 12(c) below, TVA shall use commercially reasonable efforts, at TVA's cost and expense, to replace or repair any damaged Purchased Asset if requested to do so by Buyer if the asset was damaged before Closing. TVA shall take such action as necessary to replace or repair the damaged Purchased Asset as expeditiously as practicable. TVA shall have the right to access the damaged Purchased Asset as necessary to complete replacement or repair if control of the Site has been transferred to Buyer before this work is completed.

(c) TVA shall have the right not to repair or replace the damaged Purchased Asset, in which event it shall notify Buyer in writing and TVA shall negotiate in good faith with Buyer to adjust the Purchase Price to account for the reduced value of the damaged Purchased Asset. If such negotiations cannot be completed to the satisfaction of the Parties within 30 days, then this Agreement may be terminated in accordance with Section 11(a)(iv)(C).

(d) After the Closing, if TVA's access to and continued operation of the 161-kV switchyard, associated controls and on-site 161-kV transmission lines, and its fiber optic system results in damage to other Purchased Assets transferred to Buyer, TVA shall, at TVA's cost and expense, use commercially reasonable efforts to replace or repair any such damaged assets if requested to do so by Buyer. TVA shall take such action as necessary to replace or repair the damaged Purchased Asset as expeditiously as practicable. TVA shall have the right to access the damaged Purchased Asset as necessary to complete replacement or repair.

(e) Notwithstanding anything provided herein, if Buyer elects by written notice to TVA to have TVA continue to maintain assets that support completion and operation of the two unfinished nuclear units in a manner sufficient to meet NRC quality control requirements until Closing, Buyer shall pay TVA \$875,000 per quarter (every three-month period from the date this Agreement is signed until Closing) by wire transfer without further invoicing or billing by TVA.

13. Deed Covenants; Tax Matters.

(a) Buyer, by acceptance of the Warranty Deed from TVA, covenants and agrees on behalf of itself and its successors and assigns to all of the deed covenants expressed in the Warranty Deed.

(b) TVA is a federal agency and instrumentality and is not subject to local, state, or federal taxes. Accordingly, its ownership and sale of the Site does not result in any taxes payable by TVA. Buyer is solely responsible for the payment of any local, state, or federal taxes that its purchase and ownership of the Site may generate.

(c) TVA shall deliver exclusive possession of the Real Property to Buyer free and clear of all tenants, occupants, parties in possession, leases, licenses and permits, however subject to the rights of third parties and the reserved rights of TVA as expressly set forth in this Agreement and the Warranty Deed,

14. TVA Employees.

Until after the Closing, Buyer shall not contact or discuss with any current TVA employee possible future employment at the Site or in connection with activities that support development of the Site, including completion of the two nuclear reactors located at the Site, without TVA's prior express notification and permission.

15. TVA Disclaimers and Buyer Acknowledgements.

(a) Except as expressly set forth in this Agreement, the Site is sold expressly in an "AS IS, WHERE IS," "WITH ALL FAULTS" condition, with no representations or warranties of any kind including as to the infrastructure and personal property located on the Site that are being transferred to Buyer, or their condition, operability, value or any other matter other than as expressly provided in this Agreement. TVA does not represent that the Site will be acceptable as security for loans of money or that it will not be rendered unacceptable as such security by reason of the deed provisions and restrictions applicable thereto. While TVA may have suggested or recommended in its advertising or otherwise what it believes to be the highest and best use of the Site, it does not represent or warrant that the same is safe or suitable in any respect for any such use.

(b) The Site is being conveyed to Buyer expressly subject to each of the following: (i) such rights as may be vested in the state, county, or adjoining owners in any public road running through the Site, (ii) such rights as may be vested in third parties to rights of way for telephone, electric, or other utilities, (iii) such rights of third parties as would be revealed by a physical inspection or survey of the Site, (iv) such rights of third parties as would be revealed by an examination of the public records of Jackson County, Alabama, (v) such burial rights and rights of ingress and egress as may be vested in third parties to that certain cemetery known as the Finnel Cemetery as recited in the Judgment recorded in Deed Book 007, page 62, Office of the Judge of the Probate, Jackson County, Alabama, and (vi) any known or unknown encroachments located on the Site.

(c) Buyer hereby acknowledges that TVA has not made any representation or warranty, express or implied, as to the accuracy or completeness of any information regarding the Site not otherwise expressly included in this Agreement. Buyer further acknowledges that:

(i) Buyer, either alone or together with its representatives and agents, has knowledge and experience in transactions of this type and is therefore capable of evaluating the risks and merits of acquiring the Site;

(ii) Buyer has relied on its own independent investigation, and has not relied on any information or representations furnished by TVA or any of its representatives or agents (except as specifically set forth in this Agreement), in determining to enter into this Agreement;

(iii) Neither TVA nor any of its representatives or agents has given any investment, legal or other advice or rendered any opinion as to whether the purchase of the Site is prudent, and Buyer is not relying on any representation or warranty by TVA or any of TVA's representatives or agents except as set forth in this Agreement;

(iv) Buyer has conducted extensive due diligence, including a review of the documents provided by or on behalf of TVA; and

(v) TVA has made available to Buyer documents, records and books pertaining to the Site that Buyer and Buyer's attorneys, accountants and advisors have requested, and Buyer and its attorneys, accountants and advisors have had the opportunity to visit the Site and to ask questions and receive answers concerning the Site and the assets located thereon and the terms and conditions of this Agreement. All such questions have been answered to Buyer's complete satisfaction.

(d) Buyer hereby acknowledges that (i) electric service at the Site is currently provided by TVA and the North Alabama Electric Cooperative, (ii) a two-mile, 13-kV three-phase circuit owned by the North Alabama Electric Cooperative provides service to various training facilities and storage huts, (iii) the balance of electric service needs are provided by TVA and that both services are metered and billed to the Site, and (iv) Buyer is responsible for obtaining electric service to the Site after Closing.

16. Section 26a Application Rights; Certain Real Property Matters.

(a) TVA will grant Buyer the right to apply under § 26a of the Tennessee Valley Authority Act, as amended, to construct, operate, and maintain water-use facilities on and over the adjoining land lying between the boundary of the Site and the adjacent waters of Guntersville Reservoir and in and on such waters; and the further right of suitable ingress and egress to and from the waters of the lake and to and from all structures, facilities, and improvements maintained in, on, or over said land or waters pursuant to the rights herein conveyed, all upon the express condition that said rights shall be subject to and shall not in any way interfere with TVA's statutory program for river control and development, including those rights set forth in the Warranty Deed.

(b) The acreage being conveyed as part of the Purchased Assets and that acreage being excluded as part of the Excluded Assets is generally depicted on the map attached as Schedule R.1(b). TVA believes the acreage is correctly stated; provided, however, the Site is not sold on an acreage basis and no representation or warranty as to acreage is made by TVA.

(c) TVA shall convey the real property that comprises the Site to Buyer by Warranty Deed substantially in the form attached as Exhibit A. Title to the Site was examined by TVA prior to purchase and is believed to be good, but no further warranties or insurance will be furnished by TVA except as otherwise expressly provided as to risk of loss in Section 12.

17. Jurisdiction and Venue.

Each Party hereto irrevocably submits to the sole and exclusive jurisdiction of the United States District Court for the Northern District of Alabama for the purposes of any action arising out of or based upon this Agreement or relating to the subject matter hereof. Each Party hereto further agrees that service of any process, summons, notice or document by U.S. registered or certified mail to such Party's respective address set forth in Section 18 below shall be effective service of process for any action, suit or proceeding with respect to any matters to which it has submitted to jurisdiction in this Section 17. Each Party hereto irrevocably and unconditionally waives any objection to the laying of jurisdiction and venue of any action, suit or proceeding in the United States District Court for the Northern District of Alabama, and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such action, suit or proceeding brought in any such court has been brought in an inconvenient forum. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHT OF TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT, THE TRANSACTION DOCUMENTS OR ANY MATTER ARISING HEREUNDER OR THEREUNDER.

18. Notices.

Unless this Agreement specifically requires otherwise, any notice, demand or request provided for in this Agreement, or served, given or made in connection with it, shall be in writing and shall be deemed properly served, given or made if delivered in person or sent by facsimile or sent by registered or certified mail, postage prepaid, or by a nationally recognized overnight courier service that provides a receipt of delivery, in each case, to a Party at its address specified below:

If to TVA, to:

Tennessee Valley Authority
Attn: Senior Manager, Realty Services and GIS
1101 Market Street
Chattanooga, Tennessee 37402
Tel: (423) 751-7175
Fax: (423) 751-8458

With a copy to:

Tennessee Valley Authority
Attn: Office of General Counsel
400 West Summit Hill Drive, WT 6A
Knoxville, Tennessee 37902
Tel: (865) 632-4131
Fax: (865) 632-2422

If to Buyer, to:

Nuclear Development, LLC
c/o Franklin L. Haney Company, LLC
1250 Maryland Avenue S.W., Suite 503
Washington, DC 20024
Tel: (423) 421-3451
Fax: _____

With a copy to:

Larry D. Blust, Esq.
Hughes Socol Piers Resnick & Dym, Ltd.
70 West Madison Street
Suite 4000
Chicago, Illinois 60602
Tel: (312) 604-2672
Fax: (312) 580-1994

Notice given by personal delivery, mail or overnight courier pursuant to this Section 18 shall be effective upon physical receipt. Notice given by fax pursuant to this Section 18 shall be effective as of (i) the date of confirmed delivery if delivered before 5:00 p.m. Eastern Time on any business day; or (ii) the next succeeding business day if confirmed delivery is after 5:00 p.m. Eastern Time on any business day or during any non-business day. By giving at least thirty (30) days' prior written notice thereof, any party may from time to time and at any time change its mailing addresses for notices to be given pursuant to this Section 18.

19. Post-Closing Efforts and Further Assurances.

(a) After the Closing, each of the Parties shall, without further consideration, at the other Party's prior reasonable request, use commercially reasonable efforts to execute and deliver to one another, as necessary, such other instruments and documents of sale, transfer, conveyance, assignment, notice, and confirmation, and provide documents, information and assistance, as are reasonably necessary or desirable for the complete effectuation and consummation of the transactions provided for and contemplated under this Agreement, and shall furnish to the requesting Party, at the requesting Party's reasonable request and sole expense, non-privileged books and records in connection with any audits, tax filings and other proceedings involving the Purchased Assets, subject to applicable confidentiality obligations; provided, however, that such cooperation shall not interfere with either TVA's or Buyer's operation of their respective businesses.

(b) Without limiting the foregoing, to the extent that TVA, in connection with any compliance requirements or any investigation or monitoring process of any Governmental Authority, including but not limited to NRC, the Federal Energy Regulatory Commission, the North American Electricity Reliability Corporation or the SERC Reliability Corporation, with respect to activities, matters, inactions, or other issues occurring, arising or associated with periods prior to Closing, Buyer shall provide TVA with access to any and all types of documentary or electronic information, or individual knowledge, pertinent to the subject of such investigation, monitoring process or self-report to the extent that such information or knowledge was transferred to Buyer under this Agreement.

20. Entire Agreement.

This Agreement, and all schedules and exhibits hereto, supersedes all prior discussions and agreements, whether oral or written, between the Parties or their respective affiliates with respect to the subject matter hereof, including the certain Mutual Nondisclosure Agreement, dated as of August 23, 2016 ("Mutual Nondisclosure Agreement"), and contains the sole and entire agreement between the Parties hereto with respect to the subject matter hereof and thereof.

21. Expenses.

Except as otherwise expressly provided in this Agreement, whether or not the transactions contemplated hereby are consummated, each Party will pay its own costs and expenses incurred in connection with the negotiation, execution and performance under this Agreement and the Transaction Documents and the transactions contemplated hereby and thereby, provided, however, that Buyer shall pay any recording fees incurred in connection with such transactions and, provided, further, that Buyer shall be responsible for the Compensated Costs as specified in Section 5(c); except to the extent otherwise provided in Section 11(c).

22. Public Announcements.

TVA or Buyer may issue or make any press releases or similar public announcements concerning this Agreement or the transactions contemplated after this Agreement; provided, however, each Party shall inform the other Party of any such releases or announcements and shall to the extent feasible provide the other Party copies of such public releases or announcements at least eight hours prior to the public release or announcement.

23. Confidentiality.

(a) Each Party hereto will hold, and will use commercially reasonable efforts to cause its affiliates, employees, agents, and representatives to hold, in strict confidence from any other person, unless (i) compelled to disclose by judicial or administrative process (including in connection with obtaining the necessary approvals of this Agreement and the transactions contemplated hereby of Governmental Authorities) or by other requirements of law or (ii) disclosed in an action or proceeding brought by a Party hereto in pursuit of its rights or in the exercise of its remedies hereunder, all documents and information concerning the other Party labeled or marked as proprietary or confidential and furnished to it by the other Party or on such other Party's behalf in connection with this Agreement or the transactions contemplated hereby ("Confidential Information"), except to the extent that such documents or information can be shown to have: (w) been in the public domain (either prior to or after the furnishing of such documents or information hereunder) through no fault of such receiving Party, (x) been later acquired by the receiving Party from another source if the receiving Party is not aware that such source is under an obligation to another Party hereto to keep such documents and information confidential, or (y) become the property of the receiving Party at or subsequent to Closing, provided that either Party may disclose Confidential Information to its lenders, investors, and affiliates provided they are advised of the confidential nature thereof. In the event the transactions contemplated hereby are not consummated, upon the request of the other Party, each Party hereto will use commercially reasonable efforts to cause its affiliates, employees, agents, and representatives to promptly (and in no event later than fifteen (15) business days after such request) destroy or cause to be destroyed all copies of Confidential Information and information furnished

by the other Party in connection with this Agreement or the transactions contemplated hereby and destroy or cause to be destroyed all notes, memoranda, summaries, analyses, compilations and other writings to the extent containing such Confidential Information prepared by the Party furnished such Confidential Information. Notwithstanding the foregoing, Buyer agrees that TVA may release in its entirety the bid that Buyer submitted at the auction referenced in the recitals of this Agreement and a copy of this Agreement after execution.

(b) The Parties acknowledge and agree that (i) divulgence or unauthorized use of confidential information could damage the disclosing Party and that the disclosing Party therefore has an interest in protecting the Information by all legal means; (ii) that breach of the obligations set forth in Section 23(a) above could cause irreparable damage to the disclosing Party possessing proprietary rights in information wrongfully disclosed; and (iii) further that in the event of such breach, the disclosing Party may seek an injunction, specific performance, or other equitable relief to prevent the violation of the promises mentioned above. Under 18 U.S.C. § 1905, because Buyer's officers and employees are subject to criminal liability in the event confidential information is disclosed unless such disclosure is authorized by law, TVA acknowledges and agrees that, in addition to the equitable relief identified above in this Section 23(b), TVA shall only be entitled to recover from Buyer, its officers, agents and employees any and all gains wrongfully acquired, directly or indirectly, from unauthorized disclosure of any confidential information covered under the provisions of this Section 23.

(c) The obligations contained in this Section 23 shall survive for a period of three (3) years following the Closing or any termination of this Agreement pursuant to Section 11 above.

24. Waivers.

Any term or condition of this Agreement may be waived at any time by the Party that is entitled to the benefit thereof in that Party's sole discretion, but no such waiver shall be effective unless set forth in a written instrument duly executed by the Party waiving such term or condition. No waiver by any Party of any term or condition of this Agreement, in any one or more instances, shall be deemed to be or construed as a waiver of the same or any other term or condition of this Agreement on any future occasion. Except as otherwise expressly provided herein, all remedies, either under this Agreement or by law or otherwise afforded, will be cumulative and not alternative.

25. Exercise of Remedies.

To the fullest extent that is permitted by law, no failure or delay of any Party, in any one or more instances, (a) in exercising any power, right or remedy (other than failure or unreasonable delay in giving notice of default) under this Agreement or (b) in insisting upon the strict performance by the other Party of such other Party's covenants, obligations or agreements under this Agreement, shall operate as a waiver, discharge or invalidation thereof, nor shall any single or partial exercise of any such right, power or remedy or insistence on strict performance, or any abandonment or discontinuance of steps to enforce such a right, power or remedy or to enforce strict performance, preclude any other or future exercise thereof or insistence thereupon or the exercise of any other right, power or remedy. The covenants, obligations, and agreements of a defaulting Party and the rights and remedies of the other Party upon a default shall continue and remain in full force and effect with respect to any subsequent breach, act or omission.

26. Amendment.

This Agreement and any of the Transaction Documents may be amended, supplemented or modified only by a written instrument duly executed by or on behalf of each Party hereto.

27. No Construction Against Drafting Party.

The language used in this Agreement is the product of both Parties' efforts, and each Party

hereby irrevocably waives the benefits of any rule of contract construction that disfavors the drafter of a contract or the drafter of specific words in a contract.

28. **No Third-Party Beneficiary.**

The terms and provisions of this Agreement are intended solely for the benefit of each Party hereto and their respective successors or permitted assigns, and it is not the intention of the Parties to confer third-party beneficiary rights upon any other person.

29. **Headings.**

The headings of all articles, paragraphs and sections used in this Agreement have been inserted for convenience of reference only and do not define or limit the provisions hereof.

30. **Invalid Provisions.**

If any provision of this Agreement is held to be illegal, invalid or unenforceable under any present or future law, and if the rights or obligations of any Party hereto under this Agreement will not be materially and adversely affected thereby, (a) such provision will be fully severable, (b) this Agreement will be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part hereof, (c) the remaining provisions of this Agreement will remain in full force and effect and will not be affected by the illegal, invalid or unenforceable provision or by its severance herefrom and (d) Buyer and TVA shall negotiate an equitable adjustment in the provisions of the Agreement with a view toward effecting the purposes of the Agreement, and the validity and enforceability of the remaining provisions, or portions or applications thereof, shall not be affected thereby.

31. **Governing Law.**

TVA is a corporate agency and instrumentality of the federal government of the United States of America; therefore, federal law shall at all times govern the validity, interpretation, and enforceability of this Agreement and (unless clearly specified to the contrary therein) the Transaction Documents and the transactions contemplated by this Agreement; provided, however, that to the extent there is no body of federal law for guidance or federal law adopts State law for a rule of decision or procedure, the laws of the State of Alabama, but not its choice of law provisions or principles thereof regarding resolution of conflicts of law, shall so govern.

32. **Required Federal Contracting Clauses.**

No member or delegate of the United States Congress or resident commissioner or any officer, employee, special government employees, or agent of TVA shall be admitted to any share or part of this Agreement, the Transaction Documents and the closing of the transactions contemplated hereby or to any benefit to arise therefrom unless the agreement be made with a corporation for general benefit, nor shall Buyer offer or give, directly or indirectly, to any officer, employee, special government employee or agent of TVA, any gift, gratuity, favor, entertainment, loan or any other thing of monetary value, except as provided in 5 C.F.R Part 2635; any breach of this provision shall constitute a material breach of this Agreement. Furthermore, to the extent legally required, this Agreement and the Transaction Documents shall be subject to all contract provisions and clauses required under the federal laws of the United States of America applicable to TVA and parties contracting with TVA, set forth in 18 C.F.R. Part 1316. To the extent applicable, this Agreement incorporates by reference the Equal Opportunity clause, 41 C.F.R. 60-1.4.

33. **Court Costs; Interest.**

With respect to any court proceeding between the Parties, the non-prevailing Party shall pay the prevailing Party (i) all court costs, and (ii) pre- and post-judgment interest at the rate of six percent (6%) per annum on the amount awarded from the date of the applicable breach until paid.

34. **No Assignment; Binding Effect.**

Neither this Agreement nor any right, interest or obligation hereunder may be assigned by any Party hereto without the prior written consent of the other Party hereto (which consent shall not be unreasonably withheld), and any attempt to do so will be void, except for (i) collateral assignment to its or its affiliate's lenders, (ii) assignments and transfers to any entity that controls, is controlled by or under common control with Buyer, provided, however, that Buyer shall remain obligated under this Agreement or, at TVA's option, guaranty the affiliated entity's obligations to TVA, and (iii) assignments and transfers by operation of law. Any purported assignment or delegation not effected in accordance with this Section 34 shall be deemed void. This Agreement is binding upon, inures to the benefit of and is enforceable by the Parties and their respective successors and assigns.

35. **Specific Performance; Limitation on Damages.**

EACH PARTY AGREES THAT THE DAMAGE REMEDIES SET FORTH IN THIS AGREEMENT MAY BE DIFFICULT OR IMPOSSIBLE TO CALCULATE OR OTHERWISE INADEQUATE TO PROTECT ITS INTERESTS AND THAT IRREPARABLE DAMAGE MAY OCCUR IN THE EVENT THAT PROVISIONS OF THIS AGREEMENT ARE NOT PERFORMED BY THE PARTIES IN ACCORDANCE WITH THE SPECIFIC TERMS OF THIS AGREEMENT. ANY PARTY MAY SEEK TO REQUIRE THE PERFORMANCE OF ANY OTHER PARTY'S OBLIGATIONS UNDER THIS AGREEMENT THROUGH AN ORDER OF SPECIFIC PERFORMANCE RENDERED BY THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ALABAMA. ADDITIONALLY, NOTWITHSTANDING ANY OTHER TERM OR PROVISION OF THIS AGREEMENT TO THE CONTRARY, IF BUYER COMMITS A DEFAULT, VIOLATION OR BREACH UNDER THIS AGREEMENT PRIOR TO CLOSING, THE SOLE AND EXCLUSIVE REMEDY OF TVA SHALL BE TO TERMINATE THIS AGREEMENT BY GIVING BUYER A WRITTEN NOTICE OF TERMINATION WHILE SUCH DEFAULT IS OUTSTANDING AND UNCURED, WHEREUPON, TVA SHALL KEEP AND RETAIN THE DOWN PAYMENT AND COMPENSATED COSTS PAID PRIOR TO THE DATE OF SUCH DEFAULT, VIOLATION OR BREACH AS FULL LIQUIDATED DAMAGES FOR BUYER'S DEFAULT, VIOLATION OR BREACH, IT BEING AGREED THAT TVA'S DAMAGES AS A RESULT OF ANY DEFAULT, VIOLATION OR BREACH BY BUYER MIGHT BE IMPOSSIBLE TO ASCERTAIN AND THAT SUCH DOWN PAYMENT AND COMPENSATED COSTS ARE NOT AND SHALL NOT BE DEEMED TO BE A PENALTY, BUT ARE A REASONABLE ESTIMATE OF TVA'S DAMAGES. THE FOREGOING LIMITATION SHALL NOT APPLY TO LIMIT BUYER'S LIABILITY, OR TVA'S RIGHT TO SPECIFIC PERFORMANCE, FOR ANY DEFAULT, VIOLATION OR BREACH UNDER THIS AGREEMENT SUBSEQUENT TO CLOSING. IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, PUNITIVE, OR EXEMPLARY DAMAGES AS A RESULT OF DEFAULT, VIOLATION OR BREACH OF ANY COVENANT, REPRESENTATION OR WARRANTY CONTAINED IN THIS AGREEMENT.

36. **Counterparts.**

This Agreement may be executed in any number of counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. Each Party expressly acknowledges the legal effectiveness and validity of faxed or electronic (e.g. pdf. format) signatures as original signatures. Furthermore, this Agreement may be executed and delivered by facsimile or electronic transmission. The parties intend that faxed or electronic (e.g. pdf. format) signatures constitute original signatures and that a faxed or electronic copy or counterparts of this Agreement containing signatures (original, faxed or electronic) of a party is binding upon that party. Each signature page to any counterpart of this Agreement may be detached from such counterpart without impairing the legal effect

of the signatures thereon and thereafter attached to another counterpart of this Agreement identical thereto except having attached to it additional signature pages.

37. Time of the Essence.

Time shall be of the essence in the performance of all obligations under this Agreement. If the time period by which any right, option or election provided under this Agreement must be exercised, or by which any act required under this Agreement must be performed, or by which Closing must be held, expires on a Saturday, Sunday or a holiday, then such time period shall be automatically extended to the next business day.

38. Survival.

All covenants, agreements, representations and warranties contained in this Agreement shall survive the Closing, transfer of the Real Property and Purchased Assets to Buyer and the payment of the Purchase Price, and shall not merge into any deed delivered at Closing; provided, however, that as between such surviving provisions and the terms of the Warranty Deed, the terms of the Warranty Deed shall control.

39. Memorandum of Agreement. Upon request of Buyer, the Parties shall execute and deliver to each other duplicate originals of an instrument in recordable form which will constitute a memorandum of this Agreement, setting forth a description of the Site and the term of this Agreement, which memorandum shall be recorded in the office of the Judge of Probate of Jackson County, Alabama. Upon any termination of this Agreement, the Parties shall, within 15 days of such termination, execute and deliver such instruments in recordable form as TVA may request to evidence such termination.

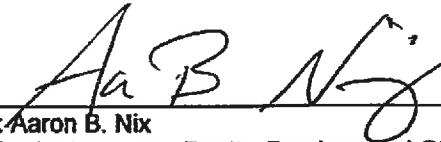
Signatures appear on following page

SIGNATURES

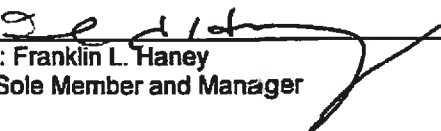
IN WITNESS WHEREOF, the Parties have executed this Agreement through their respective officers thereunto duly authorized as of the Effective Date.

TVA:

TENNESSEE VALLEY AUTHORITY

By: 
Name: Aaron B. Nix
Title: Senior Manager, Realty Services and GIS

NUCLEAR DEVELOPMENT, LLC

By: 
Name: Franklin L. Haney
Title: Sole Member and Manager

[Signature Page to Asset Purchase Agreement]

LIST OF SCHEDULES AND EXHIBITS

Schedule R.1(a)	Legal Description of the Real Property Comprising the Site and Property Survey
Schedule R.1(b)	Map of the Real Property
Schedule 1(d)	Assumed Agreements
Schedule 1(e)	Facility Permits
Schedule 3(a)	Excluded Assets
Exhibit A	Form of Special Warranty Deed
Exhibit B	Form of Bill of Sale, Assignment and Assumption Agreement

DEFINED TERMS

<u>Defined term</u>	<u>Where defined</u>
"Agreement".....	Recitals
"Assumed Agreements".....	1(d)
"Assumed Liabilities"	2
"Bidders"	Recitals
"Bill of Sale and Assignment Agreement"	6(b)(i)
"BLN Property"	Recitals
"Buyer"	Recitals
"Buyer Transaction Documents".....	6(b)
"B&W Contract"	Recitals
"Closing"	5
Closing Date	11(a)
"Compensated Costs"	5(c)
"Concentric"	Recitals
"Confidential Information"	23(a)
"Cumulative Amount"	Table 10(a)
"Down Payment"	5(b)
"Early Closing Date"	5(a)
"Effective Date"	Recitals
"Entitled Party"	9(b)
"Excluded Assets"	3
"Excluded Liabilities"	4
"Facility"	1(b)
"Facility Books and Records"	1(c)
"Governmental Authority"	9(a)(ii)
"Met Tower"	3(e)(iv)
"Mutual Nondisclosure Agreement"	20
"NRC"	1(e)
"Party" or "Parties"	Recitals
"Permits"	1(e)
"Pole Yard Training Center"	Recitals
"Purchase Price"	5(b)
"Purchased Assets"	1
"Real Property"	1(a)
"Receiving Party"	9(b)
"Site"	Recitals
"Steam Generators"	Recitals
"TVA's Retained Environmental Liability"	4(a)
"TVA"	Recitals
"TVA CEO"	6(a)
"TVA Transaction Documents"	6(c)
"Transaction Documents"	6(d)
"Warranty Deed"	3(d)

TVA TRACT NO. XBEGP-3

**FIRST AMENDMENT
TO BELLEFONTE NUCLEAR PLANT SITE PURCHASE AND SALES AGREEMENT**

THIS FIRST AMENDMENT TO BELLEFONTE NUCLEAR PLANT SITE PURCHASE AND SALES AGREEMENT (this "**Amendment**"), is entered into effective the 8th day of November, 2018, between the UNITED STATES OF AMERICA, acting by and through the TENNESSEE VALLEY AUTHORITY ("**TVA**"), and NUCLEAR DEVELOPMENT LLC, a Delaware limited liability company ("**Buyer**") (TVA, on the one hand, and Buyer on the other hand, are each referred to herein as a "**Party**" and collectively as the "**Parties**").

WITNESSETH:

A. TVA and Buyer entered into that certain Bellefonte Nuclear Plant Purchase and Sales Agreement effective as of November 14, 2016 (the "**Agreement**"), with respect to the sale of the Site and Purchased Assets (as such terms are defined in the Agreement) following a public auction held on November 14, 2016.

B. The Agreement provides that the closing of the transaction contemplated thereunder (the "**Closing**") is to occur no later than November 14, 2018.

C. Each of Buyer and TVA is willing to extend the date of the Closing from November 14, 2018 to November 30, 2018.

NOW, THEREFORE, in consideration of the above premises specifically incorporated and the mutual promises recited herein, the receipt and sufficiency of which are acknowledged by the Parties, the Parties hereby agree as follows:

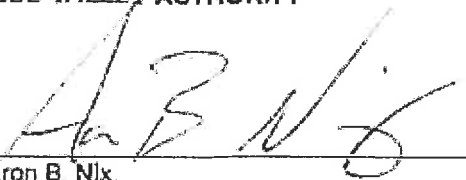
1. Defined Terms. All terms used but not defined herein shall have the meaning ascribed to them in the Agreement.
2. Closing Date Extension. All references found in Sections 5(a) and 11(a)(v) of the Agreement to "November 14, 2018" shall be deleted in full and shall be replaced in lieu thereof with "November 30, 2018" (the "Extended Closing Date").
3. Buyer's Elections to Purchase Certain Assets. Pursuant to the provisions of Sections 1(c), 3(d), 3(e), 3(f) and 3(g) of the Agreement, Buyer hereby confirms to TVA its election, in advance of the Closing, of Buyer's option to acquire at Closing each of the following assets: (a) fee title to the Pole Yard Training Center (which fee includes the space occupied by the Met Tower); (b) the Steam Generators; and (c) the 161-kV transmission line conductors and towers located on the Site to the points of terminus in the 161-kV and 500-kV switchyards on the Site. In accordance with Section 3(f), Buyer will pay the additional sum of \$1,193,130 to TVA at Closing as the purchase price for the Steam Generators.

Except as specifically amended hereby, the Agreement shall continue in full force and effect in accordance with the terms thereof.

TVATRACT NO: XBEGP-3

IN WITNESS WHEREOF, the Parties have executed this First Amendment to Bellefonte Nuclear Plant Site Purchase and Sales Agreement as effective as of the day and year set forth above.

TENNESSEE VALLEY AUTHORITY

By: 
Name: Aaron B. Nix
Title: Senior Manager, Realty Services and GIS

NUCLEAR DEVELOPMENT, LLC

By: _____
Name: Franklin L. Haney
Title: Sole Member and Manager

TVA TRACT NO. XBEGP-3

IN WITNESS WHEREOF, the Parties have executed this First Amendment to Bellefonte Nuclear Plant Site Purchase and Sales Agreement as effective as of the day and year set forth above

TENNESSEE VALLEY AUTHORITY

By: _____
Name: Aaron B. Nix
Title: Senior Manager, Realty Services and GIS

NUCLEAR DEVELOPMENT, LLC

By: _____
Name: Franklin L. Haney
Title: Sole Member and Manager

ENCLOSURE 2

RESUMES OF KEY MANAGEMENT PERSONNEL

Enclosure 2

William R. (Bill) McCollum, Jr.

Personal Information

Mailing address: 44 Beekeeper Trail Telephone: (828) 686-1621 (Home)
Swannanoa, NC 28778 (828) 333-2609 (Mobile)
eMail Address: bill@wrnccollum.com

Career Summary

Seasoned executive with 44-year track record of delivering results in all phases of the electric utility business. Demonstrated success in building executive teams, developing business strategy and creating alignment with employees and stakeholders to achieve sustainable improved business results.

Experienced in performance turnaround as performance transformation leadership, as well as M&A organizational consolidation. Demonstrated performance in a progression of responsible leadership roles including C-level positions over nuclear operations, fossil operations, transmission and power supply functions.

Strong experience in construction management, project management and controls implementation and project oversight functions.

Education:

BS in Electrical Engineering, Georgia Tech;
MS in Nuclear Engineering, Georgia Tech;
MBA from UNC-Charlotte.

Training: NRC Senior Reactor Operator's License (Catawba Nuclear Station)
Registered Professional Engineer-NC #10382
SC #22547

ND_004812

Enclosure 2

Work Experience:

07/01/2012-Present **Owner, McCollum Holdings, LLC**

Consultant to firms in the energy industry. Provides executive management consulting on nuclear industry issues, electric energy strategy issues and other energy matters.

05/01/2007-06/30/2012 **Chief Operating Officer, Tennessee Valley Authority**

Responsible for all Generation, Transmission, Construction and River Operations functions, and associated support activities for the nation's largest public power provider. Provide leadership for all operational functions as well as development and construction of new nuclear and conventional generation assets. Led an organization of over 9000 employees, a similar number of contractors, and an operating and routine capital budget of over \$9B. Responsible for capital expansion projects with total budgets of over \$5B. In addition to nuclear access clearances, held Top Secret clearance.

In this role, led a performance turnaround effort to re-tool the organization and assets, including significant reorganization, leadership change and introduction of a new management model to refocus the organization on operational excellence. Established improved labor relations, moving from an adversarial relationship to a collaborative relationship while gaining better management rights contract terms. Improved employee safety culture, resulting in recordable injury rates in top decile of industry.

10/24/2006-04/01/2007 **Executive Vice-President and Chief Regulated Generation Officer, Duke Energy Corporation**

Responsible for leadership of Regulated Fossil-Hydro Generation, Engineering & Technical Services, Procurement, Regulated Bulk Power Marketing and New Generation Construction (Fossil and Nuclear). Provide Operational leadership to achieve and improve business results of Regulated operations in Carolinas and Midwest regions. As a direct report to the CEO, provide leadership in developing and executing business and regulatory strategy to provide earnings growth through cost reductions, operational excellence and capital management.

4/1/2006-10/24/2006 **Group Vice-President, Regulated Fossil-Hydro Generation**

Responsible for operation of 21,000 MW of Fossil-fuel and Hydroelectric generating assets. Provide leadership for development and execution of growth strategy and planning for environmental compliance while achieving operational excellence.

1/1/2005-4/1/2006 **Vice- President, Strategic Planning and Business Development**

Primary Accomplishment: Led strategic planning efforts for Duke Power Company. Implemented a much more structured and disciplined approach to forward generation and financial planning. Expanded the planning horizon from three to ten years, in order to capture key decision drivers. Led efforts to acquire non-nuclear generation assets to expand the power company generation portfolio.

11/01/2002-12/31/2004 **VP, Nuclear Support Duke Power Company**

Annual O&M Budget: \$150 Million

Primary Accomplishment: Managed nuclear support functions, including Nuclear Fuels management, core design and fuels purchasing, Nuclear Supply chain services, Regulatory/ Self-Assessment functions and Engineering/ Scientific Services.

ND_004813

Enclosure 2

12/14/1997-10/31/2002 **Site VP- Oconee Nuclear Station**; Duke Power Company Annual O&M Budget: \$215 Million

Primary Accomplishment: Developed and implemented turnaround strategy to recover profitability while regaining regulatory confidence. Developed and led initiatives to change culture to support competitive success. Put in place a management team which would drive the organization to success. Implemented communications strategies to better engage workforce to support needed changes. Dramatically increased the discipline and structure for management decision-making. Led development of a five-year business and workforce plan to provide longer-term focus, rather than reactive approaches.

08/01/1995-12/14/1997 **Site VP - Catawba Nuclear Station**; Duke Power Company Annual O&M Budget: \$160 Million

Primary Accomplishment: Led continuous improvement in business focus and results. Developed communication strategies to engage workforce in organizational improvement.

11/01/1991-08/01/1995 **Station Manager, Catawba Nuclear Station**, Duke Power Company Annual O&M Budget: \$ 80 Million

Primary Accomplishment: Led group through re-organization and selected people for key management roles. Improved business results while engaging workforce. Led development of an approach to human performance improvement which became the model for the nuclear function.

01/01/1989-11/01/1991 **Maintenance Superintendent, Catawba Nuclear Station Duke Power Company**

03/01/1987-01/01/1989 **Superintendent of Station Services; Catawba Nuclear Station Duke Power Company**

Primary Accomplishment: Managed Human Resources function during times of first company-wide layoff. Coordinated selection and implementation planning for downsizing. Coordinated station communication planning and Employee Relations plans to ensure effective maintenance of employee engagement.

09/14/1974 03/01/1987 Held various roles in engineering, operations and project management within the Nuclear Generation function of Duke Power Company.

ND_004814

Enclosure 2

Professional Associations:

1.) B&W Owners Group Chairman of Executive Committee (2 years)

Led B&WOG during time of transition and challenges from industry consolidation and regulatory pressures.

2.) Member, INPO Executive Review Group (5 years)

Provided advice and consultation to management of INPO during time of significant changes. Often asked to work on subcommittees to provide assistance in shaping key process changes.

3.) Member, Nuclear Energy Institute Program and Resources Committee (2 years)

Developed plans for NEI involvement to improve industry position with regulators and legislators.

4.) Member, Electric Power Research Institute, Nuclear Power Council

Led industry efforts to deal with significant materials reliability issues in BWRs and PWRs, managed oversight of programs to deploy industry resources to address key technical and regulatory issues.

5.) Board Member, National Academy for Nuclear Training

Participated in and led Board reviews to determine accreditation of nuclear training programs for US, Canadian and South African power plants.

Civic Involvement:

1.) Board member, Chattanooga Aquarium:

Served as a member of the Board of Directors of the Chattanooga Aquarium, one of the largest aquarium and educational operations on the US. Helped lead expansion and redirection of the aquarium in response to changing economic conditions and competitive landscape.

2.) Board member, Chattanooga Chamber of Commerce:

The Chattanooga Chamber is a very active and effective force in recruiting new and expanded business into the Chattanooga area.

3.) Board member, Georgia Tech Nuclear and Radiological Health Physics Advisory Board

4.) Board Chair, Fluoride High Temperature Reactor External Advisory Board. Led an advisory Board for a multi-university government funded research project to move the design of an advanced Fluoride salt cooled reactor toward commercialization by resolving key technical barriers and analytical gaps.

Enclosure 2



1425 South Moore Road
Suite A
CHATTANOOGA, TENNESSEE 37412
423/265-4537 Fax 423/265-5422

FRANKLIN L. HANEY COMPANY, LLC
a Tennessee Limited Liability Company

3 Bethesda Metro Center
SUITE 515
Bethesda, Maryland 20814
302/479-1101 FAX 302/479-1106

FRANKLIN ("FRANK") L. HANEY, JR.

Professional Credentials:

Bachelor of Science, University of Colorado, 1998

Experience:

President - Franklin L. Haney Company, LLC, Washington, DC (1999-Present)
Financial Analyst - Oakes, Lyman & Co. Limited, London, England (1998-99)

I am responsible for securing and structuring new projects as well as selling or restructuring the financing of existing project owned by the Franklin L. Haney Company and its affiliates. My expertise lies in locating new projects for the Company, working with the state and local governments on the projects and developing the business and financial structure in order to obtain the projects. I have secured over \$1,000,000,000 in financing for such projects.

In addition, I handle the day to day operations of the Franklin L. Haney Company and its related entities along with managing the employees, which total approximately 100. The Company has downsized or sold many assets over the last 5 years which drastically reduced the number of employees under employment in order to free up cash flow and refocus our attention on new more profitable projects. I also manage and review all financial data for the Company, which includes the DC and Birmingham Office Buildings, the Colorado property, the Dulles Greenway Toll Road, the Miller/Coors Distributing Company and all family cash assets and securities.

Relevant Experience:

The Portals I and II Office Complex, Washington, DC
The Dulles-Greentway Toll Road, Loudan County, VA
The Social Security Payment Center, Birmingham, AL
The Miller/Coors Distribution Company, Northwest Arkansas
The Chattanooga Computer Center, Chattanooga, TN
The Chestnut Street Tower II, Chattanooga, TN
The Dawson's Ridge Property, Castle Rock, CO

Current Projects:

- 1) The Company is negotiating to purchase, finance and rehabilitate two (2) nuclear power plants for a combined potential financing of \$12 billion.
- 2) I am currently renovating our 660,000 square foot building in Birmingham, Alabama. To date, I have negotiated and signed a thirty (30) year 300,000 square feet lease with the State of Alabama Department of Human Resources as of April 1, 2012. I am also in the final negotiations with the City of Birmingham to lease the remaining 360,000 square feet of the Birmingham Building to house The Cities Fire and Police departments.

ND_004816

Enclosure 2



Larry D. Blust

T: 312.604.2672

F: 312.604.2673

lblust@hsplegal.com (mailto:lblust@hsplegal.com)

70 W. Madison Street Suite 4000, Chicago, Illinois 60602

Larry Blust became a Partner of Hughes Spool Pieri Resnick Dym, Ltd. in 2014. Mr. Blust has been in private practice since 1968, except for three years during which he served as a Staff Judge Advocate and Military Judge in the U.S. Air Force. Mr. Blust has extensive experience in virtually every area of corporate, tax, wealth, and real estate law. Specifically, Mr. Blust practices in the areas of mergers and acquisitions; tax reporting, consulting and controversies; gaming transactions; taxable and tax exempt bonds; infrastructure financing; other types of financing; fund structures; maritime matters; tax credits; entity structuring; wealthy family representation; and real estate law. Mr. Blust has also conducted a tax dispute practice in federal and state courts.

Prior to joining HSPRD, Mr. Blust was a partner at Barnes & Thornburg, where he served as the head of its Chicago Corporate and Business Department. Prior to that, Mr. Blust was a partner at Jenner & Block, where he was the head of the transitional Tax Department for over 20 years and was on the firm's Management Committee for 15 years.

Prior to receiving his law degree, Mr. Blust received a degree in accounting and an Illinois CPA Certificate and worked for PricewaterhouseCoopers.

EDUCATION

- ▶ University of Illinois College of Law (J.D. 1968)
 - Valedictorian
 - University of Illinois Law Review
- ▶ University of Illinois at Urbana - Champaign (B.S. Accounting 1965)
 - Co-valedictorian

ADMISSIONS

BAR ADMISSIONS

- ▶ Illinois (1968)

COURT ADMISSIONS

- ▶ Illinois Supreme Court
- ▶ U.S. Court of Appeals for the Seventh Circuit
- ▶ U.S. District Court for the Northern District of Illinois— Trial Bar
- ▶ Tax Court
- ▶ Court of Federal Claims

PROFESSIONAL RECOGNITION

- ▶ AV Preeminent™ Rating by Martindale Hubbell
- ▶ Selected by peers as Super Lawyer® (2005 to Present)
- ▶ Selected by peers as Leading Lawyer in the areas of Closely & Privately Held Business Law, Corporate Finance Law, Gaming and Casino Law, Mergers & Acquisition Law, and Tax Law; Business
- ▶ Law Member of Illinois CPA Board of Examiners (1978— 1981)

ND_004817

Enclosure 2

MEMBERSHIP/ ASSOCIATIONS

CIVIC / COMMUNITY

- ▶ Member, Board of Directors, Bailiwick Chicago
- ▶ Founding Director, Wisdom Bridge Theater (a not-for-profit theater)
- ▶ Founding Director, Chicago Moving Company (a not-for-profit dance company)
- ▶ Former Member, Board of Directors, Victory Gardens Theatre
- ▶ Former Chairman of Operation & Finance Committee and Member, Board of Directors, Augustana Hospital
- ▶ Former Member, Board of Directors, Lutheran General Hospital
- ▶ Former Member, Board of Directors, Lincoln Park Conservation Association
- ▶ Former President and Member, Old Town Triangle Association
- ▶ Member, Neighborhood Urban Renewal Advisory Board by appointment of Mayor Byrne and Mayor Daley
- ▶ Mr. Blust has also been active in Chicago neighborhood organizations and in zoning and planning matters

MERGERS AND ACQUISITIONS

Mr. Blust represents buyers and sellers in M&A transactions, including complicated tax structuring and cross border

transactions. Some of his specialized niche areas are tax -exempt entity acquisitions and LLC acquisition structures minimizing tax on retained minority interests and Hart -Scott -Rodino filings. Recent transactions include:

- ▶ Sale of two consulting practices for large consulting firm
- ▶ Joint venture between state university and a publisher on financial index
- ▶ Acquisition of beer distributorship
- ▶ Sale of manufacturer with Canadian and European operations

TAX REPORTING CONSULTING, AND CONTROVERSIES

Mr. Blust represents taxpayers at the audit, appellate, administrative hearing, and court levels regarding federal income, estate, and excise taxes and state and local income, sales, use, and franchise taxes. Recent matters include:

- ▶ Settlement of TEFRA audit
- ▶ Settlement of Chicago lease and use tax matter at administrative hearing level
- ▶ Settlement of federal accumulated surplus tax case at appeals

In addition to representing taxpayers in controversies, Mr. Blust counsels on siting to minimize state and local taxes, handles unclaimed property audits and issues, develops structures for foreign clients for investments in the U.S. and negotiates and drafts tax reimbursement (secondment) agreements and tax allocation agreements regarding U.S. employees and operation located overseas. Mr. Blust also consulted for a former governor regarding Illinois tax legislation, including a possible gross receipts tax and regarding film tax credits.

TAXABLE AND TAX EXEMPT BONDS

Mr. Blust has acted as bond counsel, borrower's counsel, underwriter's counsel, issuer's counsel, and credit enhancer's counsel on virtually every type of tax exempt and taxable bond. He was a pioneer on 501(c)(3) and Indian bonds and various synthetic bond and credit enhancement structures. Recent taxable bond transactions include the financing of a number of failed condominium project loans for several community banks by taxable variable rate demand bonds credit enhanced by Federal Home Loan Bank back to back letters of credit.

Recent tax-exempt bond transactions include:

- ▶ Issuer's counsel on 2009 and 2010 Central DuPage Hospital bonds of \$90 million and \$240 million respectively
- ▶ Bond and borrower's counsel on \$50,000,000 re -credit enhancement of housing bonds

ND_004818

Enclosure 2

► Several low and moderate income housing financings involving tax credits as well as tax exempt bonds

INFRASTRUCTURE FINANCING

Mr. Blust represents developers in structuring and financing infrastructure projects under public/private partnerships such as a toll road as to which he has represented the owners in over \$2 billion in partnership financings and refinancings. In addition, he represented the same owners in \$1 billion of mezzanine financing based on excess rated debt service coverage.

Mr. Blust also represents one of the largest developers and financiers of federal and state office buildings in federal, state, and local government financings of buildings rented to government agencies in D.C. and other locations.

Mr. Blust is currently representing a client proposing to purchase and finance two partially completed nuclear reactors. This project also involves advanced nuclear facility production tax credits.

Enclosure 2

JOHN A. SLABINSKI

2201 River Valley Drive
West Columbia, TX 77486
(979) 480-6135

john.a.slabinski@icloud.com / john.a.slabinski@gmail.com

SUMMARY:

My education includes a Bachelor of Science degree in Nuclear Science from the University of Maryland and a Management Senior Reactor Operator (SRO) certification with 29 years of verifiable experience in all aspects of Quality Assurance and project oversight. Competencies include:

- Project Quality Assurance Manager of several nuclear projects
- Completed LMJ International NQA-1 (2008 / 2009a) Lead Auditor Training Course April 2015
- Completed Villanova Six Sigma Green Belt Training March 2014
- Completed Villanova Lean Six Sigma Training July 2014
- Integrated ASME Code, contractual, quality, and regulatory requirements into project specific Quality Assurance and Project Oversight Plans
- Broad experience in developing, reviewing and writing quality programs, plans, and procedures
- Served as a member of the Watts Bar Nuclear Unit 2 Joint Test Group

EXPERIENCE:**Retired (11/15 – Present)****Tennessee Valley Authority (11/10 – 11/15)**Sr. Program Manager

- Assigned to the Watts Bar Unit 2 Nuclear Plant for construction completion and preoperational testing
- Assigned to the Bellefonte Nuclear project as the principle QA representative responsible for oversight and implementation of all quality assurance activities associated with the Construction Permit and Deferred Activity program in accordance with Generic Letter 87-15 including oversight of the fabrication of the replacement Integrated Economizer Once Through Steam Generators (IEOTSG) project activities.

Project Assistance Corporation (07/10 – 10/10)QA Manager – Program Specialist

- NQA-1, and
- ASME Section III and Section VIII programs

Science Applications International Corporation (10/05 – 07/10)Sr. QA Engineer:

Graduated from the Flight Operations Training Academy and directly supported NASA's manned space program by developing and/or writing elements of the Quality Assurance requirements for:

- Orion Quality Assurance Plan
- Orion Contractor Surveillance Plan
- Quality Certifications for Flight Readiness for all U.S. & Russian launches

I also participated in the initial planning and coordinating meetings for:

- Orion Vehicle Integration and Acceptance Plan
- Crew Exploration Vehicle Avionics Integration Laboratory (CAIL)
- Exploration Electrical Power Systems Test-bed (EEST) facility

Bechtel Power Corporation (09/00 – 07/05)Project Quality Assurance Manager:

Duties included the development of Project Quality Assurance Program Plans, comprehensive oversight and assessment plans, and more importantly the established the Quality interface between Bechtel's Management team and the client's quality and management organization at the following projects:

- Beaver Valley N-1 Outage, Steam Generator Replacement Project
- Bruce A, Units 1 & 2 Steam Generator Replacement Project, Ontario, Canada (Proposal Team)
- Browns Ferry (BFN) Unit 1 Restart
- Shearon Harris Steam Generator Replacement Project
- Arkansas Nuclear One Steam Generator Replacement Project

ND_004820

Enclosure 2

South Texas Project Nuclear Operating Company (02/85 - 05/00)Operations Staff Specialist:

Performed oversight of all aspects of Plant Operations and Reactor Engineering activities including the planning, leading, and participation in performance and compliance based audits. These activities also assessed the audited department's ability to perform internal self-assessments and verified that local, state, and federal commitments were being met. Areas of responsibility included:

- Reactor Plant Startup, Operation, and Shutdown
- Reactor Initial Criticality and Low Power Physics Testing
- Reactor Engineering
- Representative to the STPEGS Plant Operations Review Committee (PORC) for 10 years
- Served as a member of the STPEGS Independent Safety Evaluation Group (ISEG) for 7 years

Engineering Staff Specialist:

Responsibilities included participation in Safety System Functional Inspections focusing on independent engineering and safety assessments of high-risk systems critical to reactor safety including any subsequent impact on the surrounding population, environment, and the facility

Quality Engineering Supervisor:

Responsibilities included the supervision of the Nuclear Assurance verification of Licensing Event Reports (LER), all correspondence with the Nuclear Regulatory Commission (NRC), plant configuration management, and site design engineering products

Project Quality Control Supervisor:

Responsibilities included the supervision of all Electrical, I&C, Mechanical and NDE inspection activities

Bechtel Power Corporation (02/78 - 11/85)Department Administrator:

Functioned as the quality representative for the project manager and was responsible for the preparation of project review presentations for executive management and was responsible for the oversight of the configuration management databases.

Field Engineering Supervisor:

Responsible for the management of all aspects of the Clients Quality Assurance Program including the planning, implementation, and supervision of Electrical, I&C, Mechanical, and ASME Section XI, testing and inspection activities including the preparation, review, and administration of all documentation associated with these activities.

United States Navy - Honorable Discharge (1972 - 1978)Navy Nuclear Reactor Operator:

SSN - 595 Responsible for the operation of the nuclear reactor during startup, shut down, normal and emergency conditions. Collateral duties included the testing, troubleshooting, and repair of all reactor plant monitoring, control, and safety systems.

Navy Nuclear Work Coordinator:

USS Dixon Responsible for the planning and implementation of work packages and procedures for the removal, repair, reinstallation, and testing of major mechanical components in the reactor plants of nuclear submarines.

ND_004821

Enclosure 2

EDUCATION, TRAINING, and CERTIFICATIONS

- Bachelor of Science degree in Nuclear Science 08/28/1993
University of Maryland, College Park, MD, GPA 4.0, Class Rank 1 in 482
- Completed LMJ International NQA-1 Lead Auditor Training Course (2012 Criteria) 04/17/2015
- Completed Villanova Six Sigma Green Belt Training March 2014
- Complete Villanova Lean Six Sigma Training July 2014
- RABQSA ISO 9001-2000 / AS9100 Lead Auditor Training 11/17/2006
No. PL/RAB/AS/010/11/17/07
- Graduated from the United Space Alliance, Flight Operation Training Academy 03/06/2006
- American Welding Society, Certified Welding Inspector, QCI-88 and QCI-96, Certificate No. 95090931 08/01/1998
- L. Marvin Johnson and Associates, INC., Professional Quality Assurance Lead
- Auditor for Commercial, Government, and Nuclear Industries 12/05/1997
- American Society for Quality, Quality Auditor 06/28/1996
- Management Senior Reactor Operator (SRO) Certification, STPNOC 04/01/1994
- Executive Media Communications / Public Relations Training
- Wixted, Pope, Nora, Thompson, & Associates 06/10/1994
- General Physics Corporation, Performance Based Auditing Techniques 04/11/1990
- Current U. S. Passport June 2020
- Honorable Discharge, U.S. Navy 01/25/1978

ND_004822

ENCLOSURE 3

**REQUEST FOR EXEMPTION
REGARDING FINANCIAL QUALIFICATIONS
APPLICABLE TO
APPLICATION TO TRANSFER
CONSTRUCTION PERMITS
CPPR-122 AND CPPR-123**

**Bellefonte Nuclear Station, Units 1 and 2
Docket Nos. 50-438 and 50-439**

**Request for Exemption Regarding Financial Qualifications Applicable to
Application to Transfer Construction Permits CPPR-122 and CPPR-123**

Nuclear Development LLC (Nuclear Development) submits this request to the U.S. Nuclear Regulatory Commission (NRC) for an exemption from the financial qualification (FQ) requirements for construction permit transfers in 10 CFR 50.80(b)(1)(i), 50.33(f) and Part 50, Appendix C, as applied to its construction permit transfer application (Transfer Application) for Bellefonte Nuclear Station, Units 1 & 2 (Bellefonte Units).

As explained further below, this exemption request is being filed in accordance with:

- Staff Requirements—SECY-13-0124—Policy Options for Merchant (Non-Electric Utility) Plant Financial Qualifications (April 24, 2014) (ML14114A358);
- SECY-15-0123, “Staff’s Statement in Support of the Uncontested Hearing for Issuance of Combined Licenses for the South Texas Project, Units 3 and 4,” at pages 14-16 (September 30, 2015) (ML15176A532); and
- Financial Qualifications for Reactor Licensing Rulemaking; Regulatory Basis Document (Oct. 2016) (ML15322A185).

On November 22, 2013, the NRC Staff issued SECY-13-0124, recommending that the Commission modify the FQ requirements of 10 CFR Part 50. The Commission agreed and, in the Staff Requirements Memorandum (SRM), directed the Staff to engage in a rulemaking to amend the FQ requirements in 10 CFR Part 50 to establish requirements similar to the FQ requirements in 10 CFR Part 70. Upon completion of the rulemaking, applicants could propose the use of license conditions to establish financial qualifications.

In the SRM authorizing the rulemaking, the Commission also stated that the Staff should consider utilizing an exemption process during the pendency of the rulemaking. On February 12, 2016, the Commission issued Combined Operating Licenses for South Texas Project, Units 3 and 4, a merchant plant. The South Texas Project application relied on an exemption from FQ requirements, based on the direction of the Commission in SRM-SECY-13-0124 and the draft regulatory basis document.

Nuclear Development requests that the NRC grant an exemption as contemplated in the SRM. Specifically, Nuclear Development requests an exemption from the FQ requirements in 10 CFR 50.80(b)(1)(i), 50.33(f) and 10 CFR Part 50, Appendix C, to allow use of a FQ standard appropriate for a partially-constructed facility, and similar to that contained in 10 CFR Part 70, including the use of license conditions, as applicable to the NRC’s review of its Transfer Application.

A. Background and Purpose

Nuclear Development has submitted to the NRC an application to transfer Construction Permit Nos. CPPR-122 and CPPR-123 for the Bellefonte Units from the current holder of

the permits, Tennessee Valley Authority, to Nuclear Development. Section 5 of the Transfer Application addresses the FQ of Nuclear Development.

The FQ requirements for construction permit and combined license transfers have presented a challenge because Bellefonte Units would be “merchant” plants, *i.e.*, Nuclear Development does not have the benefit of traditional “cost of service” rate regulation and has had difficulty arranging for financing for construction prior to transfer of the construction permits. To resolve this issue, Nuclear Development proposes the use of a license condition requiring financial closing of a Project Finance prior to beginning construction, which would provide the reasonable assurance that is required for the NRC Staff to grant the transfers.

SECY-13-0124 discussed new approaches to evaluating FQ requirements for merchant plants. The Staff recommended that the Commission engage in rulemaking to modify the FQ requirements in 10 CFR Part 50. On April 24, 2014, the Commission issued a Staff Requirements Memorandum (SRM) for SECY-13-0124, which accepted the Staff’s recommendations to initiate a rulemaking to amend the FQ requirements of 10 CFR Part 50 in order to make them similar to the FQ standards in 10 CFR Part 70. The Commission described the rulemaking’s objective as creating a FQ requirement in Part 50 “that approximates, as appropriate, the approach currently used for 10 CFR Part 70 applications, but does not reduce the standard of review below that of ‘appears to be financially qualified.’” Upon completion of the rulemaking, license applicants would be allowed to propose use of license conditions to address financial qualifications. The Commission also directed the Staff to “consider utilizing an exemption process to address existing and emergent cases, as appropriate and necessary, during the pendency of the rulemaking process and that anticipates the outcome of the proposed changes to the current financial qualification regulations.”

In April 2015, the NRC Staff issued Proposed Financial Qualifications Requirements Included in the Draft Regulatory Basis for the Rulemaking on Financial Qualifications for Reactor Licensing (Draft Regulatory Basis) (ML15111A270). The Draft Regulatory Basis summarized a new reactor FQ standard (to be adopted through rulemaking and regulatory guidance) to replace the current standard, which requires the applicant to provide reasonable assurance of obtaining the funds necessary to construct the reactor, with a Part 70-type standard, in which the applicant appears to be financially qualified. The Draft Regulatory Basis contemplated satisfaction of this standard through submission of: (1) a construction cost estimate, (2) a financial capacity plan, and (3) proposed license conditions.

On February 12, 2016, the Commission issued a Combined Operating License for South Texas Project, Units 3 and 4, a merchant plant. The South Texas Project application relied on an exemption from FQ requirements, based on the direction of the Commission in SRM-SECY-13-0124 and the Draft Regulatory Basis Document. In October 2016, the NRC issued the Final Regulatory Basis Document for the rulemaking: Financial Qualifications for Reactor Licensing Rulemaking; Regulatory Basis Document (Oct. 2016)

(ML15322A185) (Regulatory Basis). The final version did not materially alter the bases underpinning the rulemaking or the NRC's exemption for the South Texas Project.

Under 10 CFR 50.12, the Commission has the authority to issue specific exemptions from application requirements. As discussed in Section C below, the exemption would meet the standards in 10 CFR 50.12 for such an exemption, namely: (1) it is authorized by law; (2) it will not present an undue risk to the public health and safety; (3) it is consistent with the common defense and security; and (4) special circumstances are present.

B. Requested Exemption and Proposed License Conditions

Section 50.80(b)(1)(i) requires construction permit transfer applications to provide “as much of the information described in Sections 50.33 and 50.34 of this part with respect to the identity and technical and financial qualifications of the proposed transferee as would be required by those sections if the application were for an initial license.” 10 CFR 50.33(f) in turn requires applicants to state “information sufficient to demonstrate to the Commission the financial qualification of the applicant to carry out . . . the activities for which the permit or license is sought.” More specifically, under Section 50.33(f)(1), the applicant must show that it “possesses or has reasonable assurance of obtaining the funds necessary to cover estimated construction costs and related fuel cycle costs, and shall indicate the source(s) of funds to cover these costs.” Additionally, Appendix C to Part 50 specifies the types of financial data and other information necessary to demonstrate satisfaction of the requirements in 10 CFR 50.33(f).

As explained above, Nuclear Development requests an exemption from the FQ requirements in 10 CFR 50.80(b)(1)(i), 50.33(f), and Part 50, Appendix C, as applicable to its Transfer Application, and proposes the use of the following standards:

- As to possessing and maintaining a partially-constructed facility: The applicant possesses or has reasonable assurance of obtaining the funds necessary to cover estimated costs of possessing and maintaining the facility prior to resuming construction.
- As to resuming and completing construction: The applicant appears to be financially qualified to complete construction of the facility.

Under the exemption, Nuclear Development would demonstrate its financial qualification to possess and maintain a partially-constructed facility by submitting an estimate of the costs of possessing and maintaining the facility prior to resuming construction, and indicating the source(s) of funds to cover those costs. Nuclear Development would further demonstrate its financial qualification to complete construction of the facility by submitting an estimate of the cost of completing construction, a financial capacity plan, and the following ministerial license condition:

The licensee will notify the NRC at least 120 days prior to its anticipated date of resuming construction that the license condition has been fulfilled and that the following are available for inspection:

- An updated cost estimate for completion of construction;
- Documentation justifying any material variances from the cost estimate provided in the Transfer Application; and
- Documentation demonstrating that the licensee has secured financing to fund the updated cost estimate for the completion of construction. This documentation will include operative closing documents, and may include documented proof of parent and affiliate assurances, or capital from other sources (as required to close the financing) that reflect financing for the project.

This approach will preserve financial qualification information in the licensing basis for Bellefonte Units, and will be consistent with NRC's monitoring of the potential for financial distress during construction.

C. Information Required by 10 CFR 50.12(a)

Section 50.12(a) states that the NRC may grant exemptions that are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. In addition, the NRC will not consider granting an exemption unless special circumstances are present. As demonstrated below, this exemption request satisfies the provisions in 10 CFR 50.12(a).

1. The exemption is authorized by law

The Commission has the authority to issue Nuclear Development's requested exemption. The exemption would not conflict with any provision of the Atomic Energy Act (AEA) or any other law.

In particular, the NRC has broad discretion to evaluate financial qualifications, as provided in Section 182a of the AEA. The Commission itself has observed that the AEA "does not impose any financial qualification requirement; it merely authorizes the Commission to impose such financial requirements as it may deem appropriate." *Public Service Company of New Hampshire* (Seabrook Station Units 1 & 2), CLI-78-1, 7 NRC 1, 9 (1978). Federal courts have agreed, finding that "[the AEA] gives the NRC complete discretion to decide what financial qualifications are appropriate." *New England Coalition v. NRC*, 582 F.2d 87, 93 (1st Cir. 1978). Therefore, the exemption is authorized by law.

2. The exemption does not present an undue risk to the public health and safety

As explained above, the exemption would require demonstration that Nuclear Development is financially qualified to possess and maintain a partially-constructed facility; furthermore, license conditions would require, prior to resuming construction of Bellefonte Units, that Nuclear Development provide documentation demonstrating that it has secured financing to meet the updated cost estimate for the project. If the necessary funding is not secured, the plant will not be constructed, thereby ensuring that the exemption will not present a nuclear safety issue. Consequently, the exemption presents no undue risk to the public health and safety.

3. The exemption is consistent with the common defense and security

The exemption only pertains to the FQ requirements for Bellefonte Units and will not authorize the possession of licensed material or pertain to any NRC security requirements that apply to Bellefonte Units. Furthermore, as explained above, the license condition would require, prior to construction of Bellefonte Units, that Nuclear Development provide documentation demonstrating that it has secured financing to meet the updated cost estimate for the project. Those conditions ensure that the common defense and security will not be impacted. Therefore, the exemption is consistent with the common defense and security.

4. Special circumstances are present

Section 50.12(a)(2) states that special circumstances are present whenever any of six listed circumstances exist:

- (i) Application of the regulation in the particular circumstances conflicts with other rules or requirements of the Commission; or
- (ii) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule; or
- (iii) Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated; or
- (iv) The exemption would result in benefit to the public health and safety that compensates for any decrease in safety that may result from the grant of the exemption; or
- (v) The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation; or

- (vi) There is present any other material circumstance not considered when the regulation was adopted for which it would be in the public interest to grant an exemption. If such condition is relied on exclusively for satisfying paragraph (a)(2) of this section, the exemption may not be granted until the Executive Director for Operations has consulted with the Commission.

The following special circumstances apply here:

Section 50.12(a)(2)(ii) applies because the exemption will be consistent with the objective of the FQ requirements in Part 50, which is to protect public health and safety. As provided in 33 Fed. Reg. 9,704 (July 4, 1968), "the fundamental purpose of the financial qualifications provisions . . . is the protection of the public health and safety and the common defense and security." The regulation's practical objective is to prevent safety lapses from underfunded projects. Because the exemption will ensure that the applicant is financially qualified to possess and maintain a partially-constructed facility prior to resuming construction, and license conditions will ensure that construction of the project only proceeds once adequate funding is secured, the exemption satisfies the underlying purpose of the FQ requirements in Part 50. Consequently, the special circumstance described in 10 CFR 50.12(a)(2)(ii) applies to this exemption request.

Section 50.12(a)(2)(vi) applies because there is a material circumstance not considered when the regulation was adopted for which it would be in the public interest to grant an exemption. Specifically, the Commission in the SRM on SECY-13-0124 has approved the Staff's request to initiate a rulemaking to amend the FQ requirements of 10 CFR Part 50 and to use FQ standards similar to those contained in 10 CFR Part 70, including allowance for the use of license conditions addressing financial qualifications. The Commission further authorized the Staff to consider issuing exemptions for applications reviewed during the pendency of the rulemaking, such as Bellefonte Units. Consequently, the special circumstance described in 10 CFR 50.12(a)(2)(vi) applies to this exemption request.

D. Conclusion

In accordance with the Commission's statements in the SRM for SECY - 13-0124 and the Regulatory Basis, Nuclear Development seeks an exemption from the NRC's FQ requirements as applicable to the Transfer Application. The exemption would enable the applicant to demonstrate its financial qualification to possess and maintain a partially-constructed facility prior to resuming construction, and establish financial qualifications for resuming construction through the use of license conditions that would require, prior to resuming construction of Bellefonte Units, that Nuclear Development provide documentation demonstrating that it has secured financing to meet the updated cost estimate for the project. The exemption request satisfies the factors in 10 CFR 50.12. For the foregoing reasons, Nuclear Development respectfully requests that the NRC grant the requested exemption from the requirements of 10 CFR 50.80(b)(1)(i), 50.33(f) and Part 50, Appendix C, as applicable to the Transfer Application.

ENCLOSURE 4

PROJECTED TOTAL PROJECT COSTS

FOR

BELLEFONTE UNITS 1 & 2

(NON-PROPRIETARY)

Enclosure 4

	Costs in \$MM's		
	Unit 1	Unit 2	Total
Construction Costs			
Contingency & Escalation			
Total Construction Costs			
Land Costs			
Power Uprate			
Total			
Construction Interest (DOE)			
Construction Interest (Equity)			
Total Construction interest			
Total Costs			

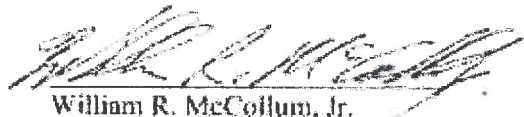
CITY OF WASHINGTON)
) SS
DISTRICT OF COLUMBIA)

10 CFR 2.390 AFFIDAVIT OF WILLIAM R. MCCOLLUM, JR.

William R. McCollum, Jr., being duly sworn according to law deposes and says:

I am Chief Nuclear Officer, Nuclear Development LLC do hereby affirm and state:

1. I am authorized to execute this affidavit on behalf of Nuclear Development LLC ("Nuclear Development");
2. Nuclear Development requests that Enclosure 4P labeled "CONFIDENTIAL INFORMATION SUBMITTED UNDER 10 CFR 2.390", be withheld from public disclosure under the provisions of 10 CFR 2.390(a)(4).
3. Enclosure 4P contains confidential commercial financial information, the disclosure of which would adversely affect Nuclear Development.
4. This information has been held in confidence by Nuclear Development. To the extent that Nuclear Development has shared this information with others, it has done so on a confidential basis.
5. Nuclear Development customarily keeps such information in confidence, and there is a rational basis for holding such information in confidence. The information is not available from public sources and could not be gathered readily from other publicly available information.
6. Public disclosure of this information would cause substantial harm to Nuclear Development's business interests because such information has significant commercial value to Nuclear Development and its disclosure could adversely affect Nuclear Development.


William R. McCollum, Jr.

Subscribed and sworn before me,
a Notary Public this 13th day of November, 2018.





ND_004832

ENCLOSURE 5

QUALITY ASSURANCE PLAN

FOR

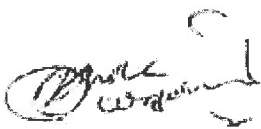
BELLEFONTE UNITS 1 & 2



SNC-LAVALIN
Nuclear

<u>Document Identification</u>		Revision
152918-0000-00000-38QP-0001		00
Date: 2018.10.18	Page 1 of 73	

Title: **Bellefonte Project – Quality Assurance Plan**

Prepared By: 
Ashok V Wagdevanani
Project Quality Assurance Manager, DLN

2018.10.16

Date:

Reviewed By: 
Marie Gilman
Project Director, DLN

2018.10.18

Date:

Approved By: 
John Oboch
Director, Quality Assurance

2018.10.18

Date:

NOTICE: This document is "Confidential Information" as defined in the purchase agreement ("the Agreement") between SNC-Lavalin USA Nuclear Inc. (SLN), and Nuclear Development, LLC (ND). Any disclosure of this Confidential Information must be made pursuant to the terms of the Agreement.

ND_004834



<u>Document Identification</u>		Revision
152918-0000-00000-38QP-0001		00
Date Effective: 2018.10.18		Page 2 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

RECORD OF REVISION					
Revision Number	Date	Description	Authorizing Signatures		Approved By:
PA	2018.06.29	Release for review and comment	Prepared By: Ashok V Wagadarikar	Reviewed By: Kevin Jones Marie Gillman John Obuch	N/A
PB	2018.09.18	Incorporated QA comments, revised to add section 19, Deferred Construction Permit for Bellefonte	Ashok V Wagadarikar	Marie Gillman	N/A
00	2018.10.18	Initial Issue	Ashok V Wagadarikar	Marie Gillman	John Obuch

P:\152918-Bellefonte Project\13-PM\Q38-QM\QP-Quality-Plan\38QP\38QP-0001 Project Quality Assurance Plan
 NOTICE: This document is "Confidential Information" as defined in the purchase agreement ("the Agreement") between SNC-Lavalin USA Nuclear Inc. (SLN), and Nuclear Development, LLC. (ND). Any disclosure of this Confidential Information must be made pursuant to the terms of the Agreement.

ND_004835



SNC-LAVALIN
Nuclear

Document Identification		Revision
152918-0000-00000-38QP-0001		00
Date Effective: 2018.10.18		Page 3 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

Table of Contents

1	Project Information	7
1.1	Customer Information	7
1.2	Scope of Work	7
1.3	Scope of this QA Plan	7
1.4	Description of Plant Facilities	9
1.5	Project Scope	9
1.6	Project Quality Assurance Program Overview	10
1.7	Nuclear Safety Culture	11
1.8	Authority to Stop Work	11
1.9	Organization	11
1.10	Organizational Structure	12
1.11	Organizational Independence	12
1.12	Responsibilities	12
1.12.1	Project Director	12
1.12.2	Project Controls Manager	13
1.12.3	Project Quality Assurance Manager	13
1.12.4	Project Quality Control Manager	14
1.12.5	Project Engineering Manager	14
1.12.6	Project Construction Manager	15
1.12.7	Project Procurement Manager	15
1.12.8	Project Training Manager	16
1.12.9	Project Onboarding Training Manager	16
2	Quality Assurance Program	17
2.1	Personnel Indoctrination and Training	18
2.1.1	Personnel Qualification	18
2.1.2	Qualification of Engineering Personnel	19
3	Design Control	20
3.1	Control of Design and Interfaces	20
3.2	ND Enterprises Asset Management	21
3.3	Design Planning	21
3.4	Engineering Design Changes (EDCs)	23
3.4.1	Design inputs	23
3.4.2	Design Process	23
3.4.3	Design Verification	24
3.4.4	Design Change Control	27
3.4.5	Commercial Grade Dedication	27
3.4.6	Human Factors Engineering	28
4	Procurement Document Control	29
4.1	General Requirements	29
4.1.1	Procurement Planning	30
4.2	Content of Procurement Documents	31

NOTICE: This document is "Confidential Information" as defined in the purchase agreement ("the Agreement") between SNC-Lavalin USA Nuclear Inc. (SLN), and Nuclear Development, LLC. (ND). Any disclosure of this Confidential Information must be made pursuant to the terms of the Agreement.

ND_004836



SNC-LAVALIN
Nuclear

<u>Document Identification</u>		Revision
152918-0000-00000-38QP-0001		00
Date Effective:	2018.10.18	Page 4 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

4.2.1	General Requirements	31
4.2.2	Scope of Work	31
4.2.3	Technical Requirements	31
4.2.4	Quality Assurance Program Requirements	32
4.2.5	Right of Access	32
4.2.6	Documentation Requirements	32
4.2.7	Non-conformances	32
4.2.8	Spare and Replacement Parts	32
4.3	Procurement Document Review	33
4.4	Procurement Document Changes	33
5	Instructions, Procedures and Drawings	34
6	Document Control	35
6.1	General Requirements	35
6.1.1	Quality Assurance Documentation	35
6.1.2	Engineering Documentation	35
6.1.3	Supplier Documentation	35
6.2	Document Identification and Preparation	36
6.3	Document Changes	36
7	Control of Purchased Items and Services	37
7.1	General Requirements	37
7.2	Procurement Planning	38
7.3	Supplier Evaluation and Selection	40
7.3.1	Supplier Evaluation for Bid Purpose	40
7.3.2	Supplier Evaluation Prior to Purchase Order Award	41
7.4	Bid Evaluation	41
7.5	Qualification of Suppliers	42
7.6	Control of Supplier Generated Documents	43
7.7	Acceptance of Items or Services	43
7.7.1	General Requirements	43
7.7.2	Methods of Acceptance	44
7.7.3	Certificate of Conformance	44
7.7.4	Source Verification	44
7.7.5	Receiving Inspection	44
7.7.6	Post Installation Testing	45
7.7.7	Acceptance of Services Only	45
7.8	Control of Supplier Non-Conformance	45
7.9	Commercial Grade Items and Services	46
7.10	Purchase Order Administration	47
7.11	Purchase Order Completion	47
8	Identification and Control of Items	48
8.1	General Requirements	48
8.2	Identification Methods	48
8.2.1	Item Identification	48
8.2.2	Physical Identification	48
8.3	Specific Requirements	49

NOTICE: This document is "Confidential Information" as defined in the purchase agreement ("the Agreement") between SNC-Lavalin USA Nuclear Inc. (SLN), and Nuclear Development, LLC. (ND). Any disclosure of this Confidential Information must be made pursuant to the terms of the Agreement.

ND_004837



SNC-LAVALIN
Nuclear

Document Identification		Revision
152918-0000-00000-38QP-0001		00
Date Effective:	2018.10.18	Page 5 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

8.3.1	Identification and Traceability of Items	49
8.3.2	Limited Life Items	49
8.3.3	Maintaining Identification of Stored Items	49
9	Control of Processes	50
9.1	Process Control	50
9.2	Special Processes	51
9.2.1	Welding Procedures	51
9.2.2	Heat Treatment Procedures	51
9.2.3	Nondestructive Examination Procedures	52
9.2.4	Special Processes Not Covered by Existing Codes and Standards	52
9.2.5	Source Surveillance on Special Processes	52
10	Inspection	53
10.1	General Requirements	53
10.2	Inspection Requirements	53
10.3	Inspection and Hold Points	53
10.4	Inspection Planning	53
10.4.1	Planning	53
10.4.2	Sampling (Non ASME Work)	53
10.5	In Process Inspection	53
10.6	Final Inspections	54
10.6.1	Resolution of Non-conformance	54
10.6.2	Inspection Requirements	54
10.6.3	Modifications, Repairs, or Replacement	54
10.7	Records	54
11	Test Control	55
11.1	General Requirements	55
11.2	Test Requirements	55
11.3	Test Procedures	55
11.4	Performance of the Component Pressure Test	56
11.5	Test Results	56
11.6	Test Records	56
11.7	Certification of ASME Code Data Report and Application of Certification Mark	57
12	Control of Measuring and Test Equipment	58
12.1	General Requirements	58
12.2	Selection	58
12.3	Calibration and Control	58
12.4	Records	59
12.5	Calibration Services	59
13	Handling, Storage and Shipping	60
14	Inspection and Test Status	61
14.1	General Requirements	61
14.2	Status	61
15	Control of Nonconforming Items and Services	62
15.1	General Requirements	62
16	Corrective Action	63

NOTICE: This document is "Confidential Information" as defined in the purchase agreement ("the Agreement") between SNC-Lavalin USA Nuclear Inc. (SLN), and Nuclear Development, LLC. (ND). Any disclosure of this Confidential Information must be made pursuant to the terms of the Agreement.

ND_004838



SNC-LAVALIN
Nuclear

<u>Document Identification</u>		Revision
152918-0000-00000-38QP-0001		00
Date Effective: 2018.10.18		Page 6 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

16.1	General Requirements	63
16.2	Corrective Action.....	63
16.3	Supplier Corrective Action Request.....	64
17	Quality Assurance Records.....	65
17.1	General Requirements	65
17.2	Generation of Records.....	65
17.3	Authentication of Records	65
17.4	Classification.....	65
17.5	Receipt, Control and Retention of Records	66
17.6	Storage	66
17.7	Retention	67
17.8	Maintenance of Records	67
17.9	Records Turnover	67
18	Audits.....	68
18.1	General Requirements	68
19	Bellefonte Deferred Construction Permit.....	69
19.1	General Requirements	69
19.2	Scope/Applicability for Current Activities Deferred Plant Status	69
19.3	Organization.....	71
19.3.1	Bellefonte Owner, Nuclear Development.....	71
19.3.2	Chief Nuclear Officer, SNC-Lavalin Nuclear (CNO).....	71
19.3.3	Project Director, BLN Project	71
19.3.4	Director, Quality Assurance SNC-Lavalin Nuclear.....	71
19.4	Deferred Permit Procedures.....	72
19.4.1	Organization	72
19.4.2	QA Program.....	72
19.4.3	Document and QA Record Control.....	72
19.4.4	Corrective Action Program	72
19.4.5	Material Storage and Handling	72
19.4.6	Equipment Maintenance	72
19.4.7	Site Security.....	72
19.5	Audits.....	73
19.6	Plant Equipment Policy	73

NOTICE: This document is "Confidential Information" as defined in the purchase agreement ("the Agreement") between SNC-Lavalin USA Nuclear Inc. (SLN), and Nuclear Development, LLC. (ND). Any disclosure of this Confidential Information must be made pursuant to the terms of the Agreement.

ND_004839



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 7 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

1 Project Information

1.1 Customer Information

Project Name: Bellefonte Project
Project Number: 152918
Customer: Nuclear Development, LLC, ND, Bellefonte Nuclear Plant, Hollywood, Alabama

Customer Contact: Frank Haney

Telephone: On record

1.2 Scope of Work

SNC-Lavalin Nuclear (USA) Inc., a subsidiary of SNC-Lavalin Nuclear Inc. (SLN), is contracted to complete Bellefonte Nuclear Generating Plant Units 1 & 2.

The Bellefonte (BLN) Project shall be executed in four (4) distinct phases as described in the EPC Agreement for Bellefonte Project. The Phases are:

- Design – complete and or upgrade all system designs and complete required engineering analysis to support all regulatory and code requirements.
- Construction – install all required components
- Start Up – testing of all components, systems and interfaces between systems
- Commercial Operation – plant operation

1.3 Scope of this QA Plan

This QAP describes the 10 CFR50 App B compliant QA Program to be applied to the Bellefonte Nuclear Generating Plant Units 1 & 2 plant facilities (as described under section 1.4) during the period of deferral of the construction period.

The QAP covers a description of the planned activities, organizational responsibilities and procedural controls that apply to the verification of construction status, maintenance and preservation of equipment and materials and the retention and protection of quality assurance records.

The QAP covers the QA surveillance / oversight and requirements to maintain the Bellefonte NRC Deferred Construction Permit following transfer of the site from the Tennessee Valley Authority (TVA) and is commensurate with the commitments made to the NRC prior to start of construction activities.

This QA Plan and attendant procedures shall be revised significantly when regulatory approval is provided to transition the Bellefonte site permit from deferred to active construction status.



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 8 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

General Information:

The Bellefonte Nuclear Generating Plant (BLN) project scope will be to complete and upgrade the two partially completed reactor plants; Bellefonte Unit 1 and Unit 2. Design will involve ensuring all regulatory requirements and standard nuclear industry initiatives are addressed, equipment that has been removed is replaced, and any required upgrades are designed. Construction will install all required plant components and refurbish existing equipment. Start Up testing will involve individual component and system testing, integrated system tests, hot functional testing, cold hydrostatic testing and reactor physics testing. Commercial operations will follow successful testing and plant synchronization to the grid. Schedule A of the Customer's Purchase Agreement (PA) provides the Scope of Work and Technical Specifications for the Bellefonte Nuclear Power Plant Completion.

Note: Procedures which govern the completion of the Bellefonte plant will be prepared and issued during the course of the project, and with exception of QA procedure references, all other procedure references are to be considered draft. The existing Bellefonte implementation procedures in place at the site will be maintained and controlled under ND, with oversight provided by the SNC-Lavalin QA organization.



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective: **2018.10.18**

Page 9 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

1.4 Description of Plant Facilities

The following is a brief description of the Bellefonte Nuclear Generating Plant Units 1 & 2.

- NSSS: Framatome (formerly Babcock & Wilcox) 205 4-Loop Pressurized Water Reactor
- Current Plant Capacity: 3,600 Megawatt Thermal, 1260 Megawatt Electric
- Turbine: GE (formerly Brown Boveri) Steam Turbine (2LP / 1HP) and a hydrogen cooled electricity generator;
- Natural Draft Cooling Towers;
- Unit 1 was 90% physically complete in 1988. The resources required to complete BLN1 (time, manpower and capital) bring the current completion estimate to approximately 55%.
- The Bellefonte site also contains a second identical unit that was completed to approximately 58% in 1988, and is currently estimated to be 35% complete.

1.5 Project Scope

Except for those specific items as being provided by others, the scope shall include all necessary management, supervision, mobilization, project controls, administrative staff, home office support, engineering, design, construction, procurement, subcontract administration, project controls, human resources, specialty technicians, safety, fabrication, inspections, testing, qualified labor, materials, equipment, tools, supplies, consumables, services, oversight, ancillary facilities, demobilization, and all other items required to perform the Work as described in the Bellefonte contract

The scope of the BLN Project includes engineering and construction services required to complete engineering, procurement, construction and testing as itemized, but not limited, to the list below.

- Development of all required nuclear programs and plans to support completion of BLN-1,2
- Complete all system designs ensuring all regulatory requirements are met
- Complete all required engineering programs and analysis
- Completion of engineering design to support required plant modifications and upgrades
- Upgrade FSAR
- Licensing activities required to support transition from deferred construction status to operating license
- Completion of major projects:
 - i) Steam generator replacement
 - ii) Turbine-generator upgrade
 - iii) Containment sump replacement
 - iv) Switchyard upgrade
 - v) Security System Installation
 - vi) Facility Building Construction
- Construction activities to complete physical installation of mechanical, civil, electrical and instrument and controls components and systems:
 - i) Replace equipment that has been removed
 - ii) Refurbish equipment that will be retained
- Procurement of all equipment, safety and non-safety related, in accordance with required quality and code requirements

NOTICE: This document is "Confidential Information" as defined in the purchase agreement ("the Agreement") between SNC-Lavalin USA Nuclear Inc. (SLN), and Nuclear Development, LLC. (ND). Any disclosure of this Confidential Information must be made pursuant to the terms of the Agreement.

ND_004842



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 10 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

- All testing required to ensure systems and components will meet design and safety requirements.
- Field engineering in support of the construction scope
- Materials management and warehousing for all material supplied
- Production of Comprehensive Work Packages and Integrated Test Plans for all field work performed under scope
- Production of closeout documentation for all field work performed

1.6 Project Quality Assurance Program Overview

SNC-Lavalin Nuclear (USA) Inc., a subsidiary of SNC-Lavalin Nuclear Inc. (SLN), The SNC-Lavalin Nuclear (USA), Inc. (SLN) Quality Assurance program is the overall Quality Assurance Program for the project. The SLN Quality Assurance Program, as described in this Nuclear Quality Assurance Plan (QAP)

- Complies with all applicable laws, follows prudent practice and is consistent with the requirements of the agreement between Nuclear Development LLC (ND) and SNC-Lavalin Nuclear Inc (SLN);
- Includes provision for audits by ND (or ND's Representative) for compliance with the ND Project Quality Assurance Plan for the scope of work as per the agreement between ND and SLN;

SNC-Lavalin Nuclear Inc., through SNC-Lavalin Nuclear (USA) Inc., will subcontract site fabrication and installation activities to qualified suppliers. The qualified suppliers shall implement and maintain a Quality Assurance program at the project site acceptable to SLN and ND. SLN shall maintain responsibility for all quality assurance requirements, including subcontracted activities and will perform oversight on activities performed by SNC-Lavalin and their suppliers in accordance with the Bellefonte Oversight Plan for the contracted SLN project work scope covering the following project activities:

- Design (SLN scope)
- Construction (Scope of a Sub-Supplier qualified by SLN)
- Procurement (SLN scope)
- Inspection and Testing (Scope of a Sub-Supplier qualified by SLN)
- Handling and storage of nuclear materials and components (Warehousing) (Scope of a Sub-Supplier qualified by SLN)
- Construction Work Packages (Scope of a Sub-Supplier qualified by SLN)

NOTICE: This document is "Confidential Information" as defined in the purchase agreement ("the Agreement") between SNC-Lavalin USA Nuclear Inc. (SLN), and Nuclear Development, LLC. (ND). Any disclosure of this Confidential Information must be made pursuant to the terms of the Agreement.

ND_004843



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 11 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

1.7 Nuclear Safety Culture

Nuclear safety culture is defined as the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment. The following Nuclear Safety Culture principles apply to the BLN Project:

- Responsibility and authority for nuclear safety are well defined and clearly understood. Reporting relationships, positional authority, and team responsibilities emphasize the overriding importance of nuclear safety;
- Project team members are watchful for assumptions, anomalies, values, conditions, or activities that can have an undesirable effect on plant safety;
- Communications maintain a focus on safety;

Executive and senior managers are the leading advocates of nuclear safety and demonstrate their commitment both in word and action. The nuclear safety message is communicated frequently and consistently, occasionally as a stand-alone theme.

1.8 Authority to Stop Work

SNC-Lavalin Nuclear QA and Contractor quality assurance and inspection personnel have the authority, and the responsibility, to stop work in progress which is not being done in accordance with approved procedures or where safety or structure, system or component integrity may be jeopardized. This extends to off-site work performed by suppliers furnishing safety-related materials and services to SNC-Lavalin.

1.9 Organization

SNC-Lavalin Nuclear Inc. will have overall responsibility for Project Quality Assurance and will comply with SNC-Lavalin Nuclear Inc. Quality Assurance Manual 2206-01912-QM-0001. The Quality Assurance Manual is SNC-Lavalin Nuclear Inc.'s commitment to meeting the Quality Assurance requirements of 10CFR50 Appendix B.

SNC-Lavalin Nuclear Inc., through SNC-Lavalin Nuclear (USA) Inc., will subcontract site engineering and construction activities to qualified suppliers, as required. The qualified suppliers shall implement and maintain a Quality Assurance program at the project site acceptable to SLN and ND. SLN shall maintain responsibility for all quality assurance requirements, including subcontracted activities.

This Bellefonte Project Nuclear QA Plan is considered a living document and will be revised, reviewed, and approved as changes are made.

The SNC-Lavalin Nuclear Inc. Quality Assurance Program is the overall Quality Assurance Program for the project. SNC-Lavalin and all direct suppliers to SNC-Lavalin Nuclear shall be qualified in accordance with requirements of this QAP. SLN shall plan and conduct surveillance on all activities performed by its sub-suppliers to assure adequate oversight of their performance.



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 12 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

The overall BLN Project organization shall be as defined in Bellefonte Project Execution Plan. The project Organization Chart shall be maintained and updated through the life of the project by the Project Manager or the Deputy Project Manager. This does not preclude the Project Manager from producing multiple organization charts to completely define the project structure.

1.10 Organizational Structure

Personnel performing activities on the BLN Project for all phases of project execution are shown in an integrated project organization chart that is developed and maintained through the life of the project by the BLN Project Director. This does not preclude the BLN Project Director from producing multiple organization charts to completely define the project structure. The Project Organization charts will be reviewed periodically and will be filed separately by Document Control.

1.11 Organizational Independence

For the BLN Plant, independence shall be maintained between the organization performing the checking (quality assurance and quality control) functions and the organizations performing the functions. This provision is not applicable to design review/verification.

1.12 Responsibilities

This QAP defines responsibilities related to implementation of the Quality Program applicable to execution of BLN project.

The detailed responsibilities of the key SNC-Lavalin individuals are defined in the Bellefonte Project Execution Plan. All other individual responsibilities shall be as described in the other detailed plans referenced by Project Management Plan. All SNC-Lavalin personnel assigned to this project shall perform their assigned duties in compliance with the SNC-Lavalin Nuclear Inc. Quality Assurance program and under the direction of SNC-Lavalin Nuclear qualified personnel. Records of personnel qualifications shall be available for inspection by ND as required.

1.12.1 Project Director

The Project Director reports to the SNC-Lavalin Chief Nuclear Officer and is responsible:

- for the implementation and effectiveness of this quality assurance plan;
- to develop and maintain the Project Organization Chart through the life of the project.
- to ensure that personnel assigned to perform activities are trained, qualified and competent to perform their assigned tasks effectively;
- for identifying Customer communication channels;
- for obtaining, assessing, and issuing information gained from experience for design, construction, installation and commissioning activities;
- for managing project staffing as necessary;
- for reviewing Customer's work request, tendering documents, contracts and associated documents, to determine that the requirements are defined and documented, and that SLN's resources and capability are adequate to meet the requirements;



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 13 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

- for assigning project resources appropriate for the work to be performed;
- for ensuring that the completion assurance is performed.

1.12.2 **Project Controls Manager**

The Project Controls Manager is responsible to manage all activities related to scheduling, planning, estimating, reporting, and cost control for the project.

1.12.3 **Project Quality Assurance Manager**

The Project Quality Assurance Manager reports functionally to SNC-Lavalin Director, Quality Assurance and to the BLN Project Director for implementation of the Project QA program, as described in this QAP. The SLN Quality Assurance Manager shall have overall responsibility for implementing, monitoring compliance, and reporting project performance with respect to quality assurance.

The Quality Assurance Manager has responsibility to plan and execute surveillance on project activities assigned to be performed by SLN's qualified suppliers responsible for execution of construction work.

The Quality Assurance Manager shall be independent of cost and schedule considerations and has the authority to plan, establish, implement and maintain this Quality Assurance Plan and is the management representative who has authority and responsibility to resolve quality matters, and has the organizational freedom, along with those responsible for verification, audit and program review functions, to:

- Identify and record quality problems and problems related to the effective implementation of this QAP;
- Initiate, recommend, or provide solutions to such problems through designated channels;
- Verify and confirm implementation and effectiveness of solutions;
- Control further processing, delivery, or installation of a nonconforming item or service until a disposition has been obtained.

The Quality Assurance Manager and persons responsible for the verification, audit, and program review functions have direct access to a level of management necessary to ensure that appropriate actions are implemented.

The Quality Assurance Manager has a direct line of communication to the BLN Project Director and is assigned the responsibility, authority, and organizational freedom, to initiate, implement and control the Quality Assurance Plan and is responsible:

- to represent the project team on all matters pertaining to quality;
- for planning, establishing, documenting, and maintaining this quality assurance plan;
- to direct the performance of internal and external quality audits;
- for verification of purchased items and services for construction and installation work;
- for planning and conducting oversight activities as necessary;
- for providing indoctrination and training in this Quality Assurance Plan (QAP);
- to ensure that trained, qualified, competent, and as required certified, personnel are assigned to perform quality related activities;



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective: **2018.10.18**

Page 14 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

- to report to the Project Executive Committee, if requested, on the performance of the Quality Assurance Plan;
- for acceptance of quality services;
- for evaluating and ensuring contractors selected meet project quality requirements;
- for reviewing and accepting of supplier furnished documents;
- for providing support in ensuring satisfactory performance with regard to the Project Objectives.

1.12.4 **Project Quality Control Manager**

The Project Quality Control Manager reports functionally to the Director, Quality Assurance and to the Project Construction Manager for execution of project quality control activities and functionally reports to SNC-Lavalin Nuclear Quality Manager.

The Quality Control Manager shall be responsible for:

- Providing guidance to Quality Assurance Specialists assigned to the project.
- Providing oversight of incoming, in-process, and final inspections on the project as detailed on the inspection and test plan and procedures.
- Staffing QC positions for the project with suitably qualified individuals.
- Providing support to project in ensuring satisfactory performance with regard to the project quality control objectives.
- Ensure that quality control plans/checklist and records are prepared and maintained
- Initiate, control and report nonconforming items during site installation phase;
- Ensure that quality records are compiled in HD/HF and approved prior submission for acceptance
- Providing on-job training of site inspection personnel on the quality project requirements.
- Interfacing on matters relating to quality with the Customer as well as the Regulatory Authorities as requested by project QA Manager.

1.12.5 **Project Engineering Manager**

The Project Engineering Manager reports to the BLN Project Director and is responsible for:

- overall design control,
- ensuring that design is defined, controlled and verified, and
- ensuring availability of appropriate verification and validation of design analysis tools.
- ensuring compliance with approved design, regulatory requirements, codes, standards and good engineering practices.
- providing general direction for establishing technical, safety and quality standards for engineering deliverables.
- reviewing and approving key technical documentation
- monitoring the technical quality of engineering deliverables
- providing assistance to engineering pertaining to codes, standards, regulatory requirements
- technical liaison with customers regarding the technical quality of engineering services



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective: **2018.10.18**

Page 15 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

Lead Discipline Engineers are responsible to ensure that their staff performs design activities in accordance with applicable statutes, standards, codes, customer requirements, and corporate policies and procedures. Specific responsibilities include but are not limited to:

- reviewing and approving the selection of design inputs,
- correctly translating design input into specifications, drawings, procedures, instructions and other design documents,
- ensuring appropriate quality standards are included in design documents and their selection is reviewed and approved,
- selection and review for suitability of application of design methods, materials, parts, equipment, and processes that are essential to the safety-related functions of structures, systems and components,
- making applicable information derived from operating experience available to appropriate design personnel
- performing design analysis and verification;
- assigning work activities to design staff and revise as required,
- providing status reporting of work activities to Project Managers, or Vice Presidents, as required,
- monitoring staff performance to customer requirements

1.12.6 **Project Construction Manager**

The BLN Project Construction Manager reports to the BLN Project Director and is responsible for:

- executing construction and installation activities,
- ensuring adequate resources are available, and
- interfacing with quality assurance personnel on quality matters

1.12.7 **Project Procurement Manager**

The BLN Project Procurement Manager reports to the BLN Project Director and is responsible for:

- supervision of supply chain personnel,
- approving procurement documents, prior to issue,
- communications and transactions between the project and suppliers; and
- supplier commercial contract review.



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 16 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

1.12.8 Project Training Manager

The Training Manager reports to the BLN Project Director and is responsible for:

Ensuring that the Training Plans meet the training requirements of the Project;

- Ensuring that necessary resources are identified, planned for, and effectively applied;
- Leading, organizing, and verifying the training and work activities of the training department;
- Ensuring that the BLN Training Program follows and meets the requirements set out by the Contract with ND and the BLN Quality Assurance Plan;
- Approving plans, work instructions, and training packages;
- Ensuring Instructors are qualified in accordance with the training and procedures specified in this Plan;
- Monitoring training facilities and support infrastructure, and reporting inadequacies to the BLN Performance Improvement Director ;
- Ensuring Trainees are qualified as required by the Project;
- Ensuring that the BLN Training Coordinator maintains all training records accurately, and to an auditable standard;
- Arranging self-assessments and internal audits to ensure procedures and best practices are followed; and
- Obtaining feedback from the field (through OE reviews by Training Supervisors) and ensuring they are incorporated into the training program (continuous improvement process).

1.12.9 Project Onboarding Training Manager

The Onboarding Training Manager reports to the BLN Training Manager, and is responsible for the following:

- For the creation and maintenance of all training records in a learning management system;
- For the interfacing with, and population of information into the ND's Operators learning management system (LMS);
- To ensure that personnel assigned to perform engineering and support activities are trained, and qualified to perform their assigned tasks effectively.



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 17 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

2 Quality Assurance Program

SNC-Lavalin Nuclear Inc. will have overall responsibility for Project Quality Assurance for the Bellefonte Project and will comply with SNC-Lavalin Nuclear Inc. Quality Assurance Manual 2206-01-00-QM-0001.

SNC-Lavalin's Nuclear Quality Assurance Program complies with applicable clauses from the following national and international standards:

- ASME Boiler and Pressure Vessel Code, Section III, Division 1;
- ASME NQA-1:2017, Part 1 Requirements for Quality Assurance Processes for Nuclear Facilities;
- 10 CFR Part 50 Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants.

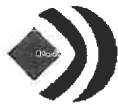
SNC-Lavalin Nuclear Inc. will subcontract certain activities defined in the Procurement and Subcontract Management plan to qualified supplies for the activities they are subcontracted to perform. SLN shall accomplish oversight quality assurance for subcontracted activities in accordance with clause Q, Control of Purchased Items and Services.

The quality assurance program and supporting procedures (if applicable) will be identified and described in the following clauses. Throughout the life of the project procedures may be revised. These procedures may be SLN corporate procedures, SLN project specific procedures or supplier procedures for meeting Code and contract requirements. If this occurs, the SLN Quality Assurance Manager shall review these changes to ensure the change does not affect any commitment made in this Quality Assurance Plan. This is accomplished by the following procedures;

- 2206-01-20-OP-0001, Quality Assurance Document Control
- 2206-01-40-OP-0010, Evaluation of Supplier Quality Program Manuals

Where a quality requirement is being met by a subcontractor, the applicable clause will describe the requirements that must be met to achieve project quality.

Subcontractors will comply with their Quality Assurance program accepted by SLN in addition to the additional project quality requirements included in this SLN Quality Assurance Plan (QAP) Subcontractors will demonstrate compliance to their Quality Assurance program and the applicable requirements of the SLN Quality Plan during the SLN supplier qualification maintenance process. This may be through audit or performance monitoring.



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 18 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

2.1 Personnel Indoctrination and Training

In addition to the mandatory indoctrination and training on the SLN Quality Assurance Program, The BLN Project team shall be indoctrinated in this QAP. Project personnel shall meet the indoctrination and training requirements of the Quality Assurance Program that controls the activities.

Project personnel performing or otherwise verifying activities affecting quality shall be competent on the basis of appropriate education, training, skills, experience and written examination. They will be provided with the appropriate indoctrination and training as necessary to assure suitable proficiency is achieved and maintained.

Personnel shall receive indoctrination and training prior to performing activities under this PQP when they change areas of responsibility and when this PQP and/or referenced procedures are revised. Training records shall be maintained for BLN Project personnel.

Indoctrination and training of personnel shall be carried out in accordance with SLN Operating Procedure 2206-03-10-OP-0001, Personnel Indoctrination and Training, as related to their job function. Supplier / Constructor personnel performing activities controlled directly by SLN Quality Manual shall be indoctrinated and trained to the SLN Quality Requirements.

Project specific training and qualification requirements shall be identified in the BLN Project Training Plan.

For organizations providing sub-contract services, any special qualifications or training requirements for their personnel working on the project, shall be specified in the subcontract agreements. All subcontract personnel shall be qualified for the work they are carrying out prior to performing any activity for which qualification is required by the project organization performing the work. In addition, subcontract personnel may be required to comply with the training requirements identified in the BLN Project Training Plan. All other non-quality related training shall be defined and described in the Project Training Plan.

2.1.1 Personnel Qualification

All personnel shall be qualified for the work they are performing prior to performing any activity for which qualification is required by the project organization performing the work. Personnel qualification records shall be reviewed and verified by SLN during qualification of the supplier or during project surveillance of that activity.

Personnel qualifications will be recorded, maintained, and stored in accordance with the following SLN Procedures:

- 2206-01-40-OP-0003, QA Audit Personnel – Qualification Requirements;
- 2206-01-40-OP-0012, Inspection Personnel – Qualification Requirements;
- 2206-03-10-OP-0001, Personnel Indoctrination and Training;
- 2206-03-30-OP-0002, Engineering Qualifications Management;



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 19 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

SLN will audit and accept QA Programs of qualified Suppliers / Constructors. Personnel qualifications will be recorded, maintained and stored in accordance with procedural requirements. Personnel requiring qualification and certification include:

- Test Personnel;
- Receiving Personnel;
- Inspection Personnel;
- Source Surveillance Personnel;
- Non-destructive Examination Personnel;
- Audit Personnel;
- Engineering Personnel performing American Society of Mechanical Engineers (ASME) Code Certification activities;
- Welders and Trade Personnel.

Personnel performing visual inspections required by the ASME Boiler and Pressure Vessel Code shall be qualified and certified according to ASME Code requirements.

2.1.2 **Qualification of Engineering Personnel**

Personnel performing engineering work shall be qualified in accordance with SLN Operating Procedure 2206-03-10-OP-0002, Engineering Qualifications Management.

The Engineering Manager shall ensure Design Engineers involved in evaluating changes to final design have the demonstrated competence in the specific design area of interest and have an adequate understanding of the requirements and intent of the original design.

In addition, if there are project specific qualification requirements, the Engineering Manager shall ensure those requirements are incorporated into the Engineering Plan, and ensure personnel are qualified before assigning them to these specific roles.



SNC-LAVALIN
Nuclear

<u>Document Identification</u>		Revision
152918-0000-00000-38QP-0001		00
Date Effective:	2018.10.18	Page 20 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

3 Design Control

3.1 Control of Design and Interfaces

SLN has overall responsibility for engineering activities and shall directly perform design activities and provide support during construction and Start Up. Engineering activity shall be subcontracted to qualified suppliers as required.

The Engineering Manager has overall responsibility for design activity and control of design change ensuring that all designs/design changes on the BLN Project are defined, controlled, and verified. The Design Inputs shall be correctly translated into specifications, drawings, procedures and instructions. Design adequacy shall be verified by individuals other than those who designed the item.

Design changes shall be governed by control measures commensurate with those applied to the original design. The governing process is described under section 3.4.4, Design Change Control.

Design interfaces shall be identified and controlled. In the course of the design development and control, SNC-Lavalin shall interface with suppliers, the plant Operator and ND at various steps. Deviations to the Interface Requirements will be documented in the Scope of Work or applicable Master EC Package.

Qualification of engineering personnel who perform verification activities shall be qualified in accordance with Operating Procedure 2206-03-10-OP-0002 Engineering Qualifications Management.

The Engineering Plan identifies the organizations, controls, and responsibilities among participating organizations for the preparation, review, approval, issue, distribution, and revision of design documents.

The Engineering Manager is responsible for identification and control of design interfaces and for coordination of the design efforts among the project organizations.

The Document Control Lead shall ensure information transmitted across interfaces shall identify the status of the design information or document provided. Where it is necessary to initially transmit design information orally or by other informal means, the transmittal shall be confirmed promptly by a formal submission.

Engineering interface control shall be described, as appropriate, in the following documents:

- The Engineering Plan for the project;
- The supporting Design Plan for the particular scope of work;
- The Design Verification Plan.



SNC-LAVALIN
Nuclear

Document Identification

152918-0000-00000-38QP-0001

Revision

00

Date Effective:

2018.10.18

Page 21 of 73

Title: **Bellefonte Project – Quality Assurance Plan**

3.2 ND Enterprises Asset Management

The Enterprise Content Manager system (ECM) will remain as a repository for Engineering Design Changes (EDCs) and shall be used to control modification progression through SLN. Relevant ECM fields will be populated as needed to progress work and maintain configuration management. Engineering will be required to populate the relevant ECM fields at the end of the following modification phases:

- At the start of Scoping to register Master EDCs.
- At the end of Modification Planning to populate Master EDCs, and populate the Master Equipment List (MEL).
- At the end of Design Completion and prior to Available for Service to incorporate all field, and non-intent changes.
- Prior to Closeout to launch the AEL, and populate closeout related panels.

A scanned version of the approved Master EDC Binder and/or Design Package shall be uploaded to ECM. When the opportunity arises to populate ECM, the EDC packages shall be attached to the Reference Document List of the relevant Master or Design EDC.

Approval of the EDC resides with the scanned copies of the packages in ECM.

3.3 Design Planning

A Design Interface Agreement ("DIA") will be put in place between ND and SNC-Lavalin Nuclear Inc. The DIA defines and documents the responsibilities of ND and SNC-Lavalin Nuclear Inc. in sufficient detail to cover the preparation, review and approval, issuance, distribution and revision of documents across design interfaces.

The overall responsibility for engineering resides with SLN.

The Engineering Manager has overall responsibility for design/design change and shall ensure all designs/design changes on the BLN Project are defined, controlled, and verified. The Design Inputs shall be correctly translated into specifications, drawings, procedures and instructions. Design adequacy shall be verified by individuals other than those who designed the item.

Engineering activities shall consist of a set of Engineering Design Changes (EDCs) documented in Modification Packages. The EDCs will provide the necessary authorization and directions to perform Plant modifications.

The Engineering Manager is responsible for preparation of an Engineering Plan and supporting Design Plans with the necessary level of detail to permit the design process to be carried out in a correct manner and to permit verification the design meets requirements. The Engineering Plan and supporting Design Plans shall include:

- Work Package Identification and Description;
- Work to be Sub-contracted;